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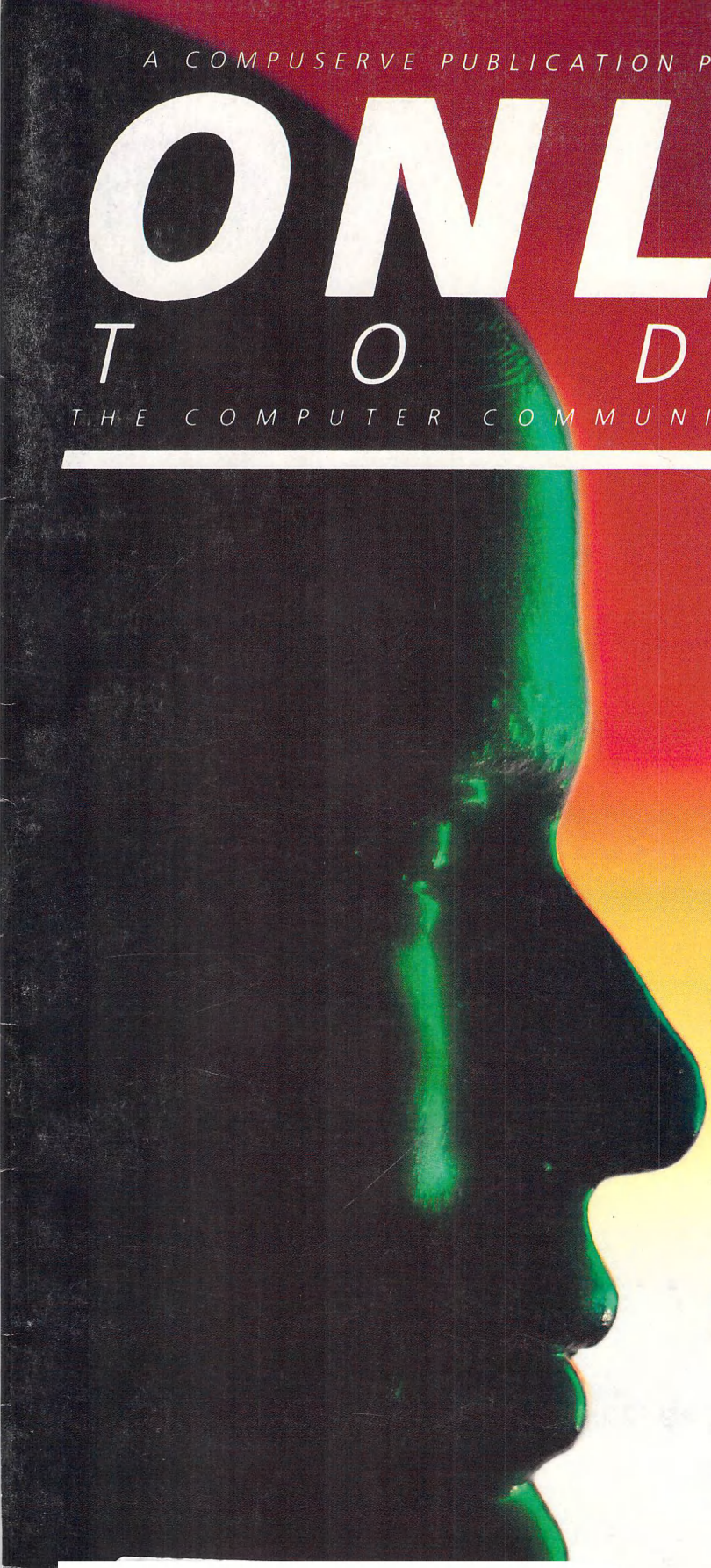

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ELECTRONIC EDITION

Online Today Electronic Edition provides daily-updated computer and information industry news, coverage of CompuServe services, commentary, computer product reviews and more.

GO OLT **A GO-Page Directory** *of the day's top computer industry news and a summary of key OLT page numbers.*

OLT-160 **The Monitor Daily News** *main menu.*

OLT-90 **Today's Computer and Information Industry News.**

OLT-20 **The Current Week's Monitor News.**

OLT-130 **Behind the Screens℠.** *Computer and information industry news, rumor and gossip.*

OLT-50 **CompuServe Update** *main menu. Lists all CompuServe news departments.*

OLT-70 **What's New on CompuServe.**

OLT-80 **CompuServe Community News.**

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OLT-140 **Beginner's Corner.**

OLT-600 **Resident Memory.**

OLT-3500 **Online with Charles Bowen.**

OLT-3700 **Uploads.** *A bi-weekly column summarizing new files in forum data libraries.*

OLT-1000 **Computer Events Calendar.**

OLT-2000 **OLT Special Reports.**

OLT-3000 **Computer Legislation Database.**

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EBB-11 **Instructions** *on use of the Electronic Bounce Back reader service system.*

EBB-160 **Online Today Display Ads** *main menu.*

EBB-70 **Shopper's Guide.**

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DEAR READER

CompuServe subscribers often mention that one of the main reasons they join and stay with CompuServe is to take advantage of the quality advice and opinion from technical experts who "hang out" on the service. While this reason is usually given in the context of hardware and software information, it is no less valid when it comes to high technology in general.

Whether your high tech topic of interest is space, state-of-the-art digital sound or programming languages, chances are you'll find some of the nation's most respected experts in these and other fields residing in a CompuServe forum.

In this issue, *Online Today* takes a closer look at high technology on CompuServe — from astronomy to artificial intelligence and *OMNI* magazine's online forum to *Dr. Dobb's Journal* — beginning on page 12.

* * *

The sky's the limit for projects and conferences in the technology forums. Dick DeLoach, CompuServe's Space Forum administrator, and NASA's Teacher in Space program finalists linked up electronically to design the Space Education Forum. The idea is to provide a way to involve classrooms across the country in space education and research projects — to keep the mission going despite the tragedy of the Challenger.

One of the first assignments for the Space Education Forum's crew involved an online meeting of 10 Soviet youth representing the Young Cosmonauts, a group that recently toured five cities in the United States, and the Young Astronauts, American youth who completed a similar tour of the Soviet Union. While no major problems were solved and many were just overlooked in the interest of goodwill, the meeting of "ambassadors" surely must be a first.

To read more about the Space Education Forum and its evolution, see page 15.

* * *

It's time to think of taxes again, and CompuServe has several services this year — including H&R Block, the IRS Tax Information Database and the International Entrepreneurs' Network — to help make the chore easier. Find out all about these services in a tax roundup article on page 36.

Douglas G. Branstetter
Editor

ONLINE® TODAY

***Online Today*R, February 1987**
Volume 6 Number 2

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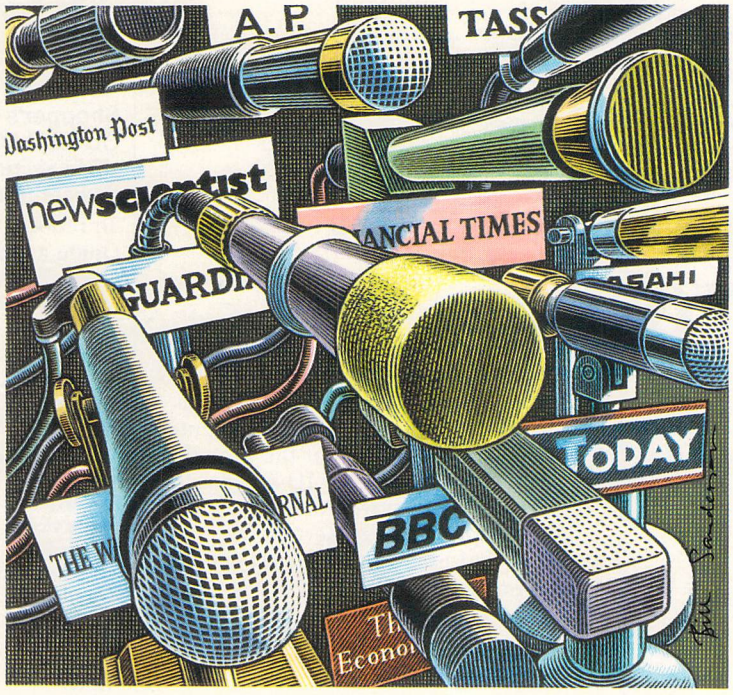

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ELECTRONIC BOUNCE BACK

Guidelines to Requesting Information Through EBB

Electronic Bounce Back

Electronic Bounce Back is *Online Today*'s electronic version of the traditional reader inquiry card. To request additional information about products or services described in *Online Today*, simply access CompuServe and type GO EBB at any prompt.

CompuServe Page EBB-1
ONLINE TODAY ADVERTISERS
ELECTRONIC BOUNCE BACK (EBB)
1. EBB Instructions
2. Online Today Display Ads
3. Print Edition Reviews
4. Shopper's Guide Classifieds

Display Ads

GO EBB-160. Inquiries to this section will be followed by a brief description of the *Online Today* ad. To request additional printed information, simply enter your name and address at the prompts. EBB will add your User ID number and electronically forward your request to the appropriate advertiser(s). The names, addresses and User ID numbers will also be forwarded via US Mail at the end of each month.

CompuServe Page EBB-160
ONLINE TODAY ADVERTISERS/EBB
1. Feb. 1987 Advertisers
2. Jan. 1987 Advertisers
3. Dec. 1986 Advertisers

Editorial Articles/Reviews

At the end of each electronic version product review, you'll be asked if you wish to request further information through the Electronic Bounce Back system. A "yes" response will let the system prompt you for your name, address and other information so that your request can be forwarded to the appropriate company. If you respond "no," the system will return you to the previous menu.

To request information about products reviewed in the print edition, go to page EBB-280 and select the appropriate listing, such as February Hardware Reviews. At the next menu, select the product you're interested in. If you answer "yes" at the question prompt, the EBB system will prompt you for the necessary information.

Requests to these sections will be stored and forwarded by traditional mail once each month.

CompuServe Page EBB-280
REVIEW LISTINGS/PRINT EDITION
1. Feb. Hardware Listings
2. Feb. Software Listings
3. Feb. New Product Listings

Shopper's Guide

GO EBB-70. This is *Online Today*'s classified section and is designed to enable readers to easily scan areas of interest.

To request information from Shopper's Guide advertisers, send messages via CompuServe EasyPlex or use traditional methods of communication.

CompuServe Page EBB-70
SHOPPER'S GUIDE
1. About Shopper's Guide
2. Rates and Information
3. Software
4. Services
5. Hardware
6. General

***Note:**
Additional requests during the same session will not require you to re-enter your name and address.

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We publish all the computer industry news every day in *Online Today Electronic Edition*. GO OLT-90 from any prompt on the CompuServe Information Service.

ONLINE TODAY

LETTERS

Twist & Shout Review

In the review of Twist & Shout (November issue, p. 41), it was stated that the program was available for the IBM PC, PC-XT, PC-AT and true compatibles and CP/M-based computers.

However, the manufacturer, Intersecting Concepts, advertises that an MS-DOS version of Twist & Shout is available for the DEC Rainbow, a computer that is not an IBM clone.

It would be a service to your readers if you could let them know when a program reviewed in your magazine will run under generic MS-DOS or is available in MS-DOS versions for computers other than the IBM and IBM clones.

Carl D. Neiburger
San Jose, Calif.

Word Processing Reviews

Your reviews of Microsoft Word 3.0 and WordPerfect 4.1 were informative, but both packages now have newer versions available. One of the reasons I subscribe to the CompuServe Information Service and *Online Today* is that I can get timely information on a variety of subjects, so I look for current product reviews.

Other than that, I think you are providing an important service.

Michael White
Edmonton, Alberta, Canada

Editor's Note: Due to the lead time necessary to produce a monthly print magazine, the reviews published in a given issue will not be as current as the reviews published online. To access Online Today Electronic Edition*'s Software Reviews, type GO OLT-230.*

Comment on *Online Today Electronic Edition*

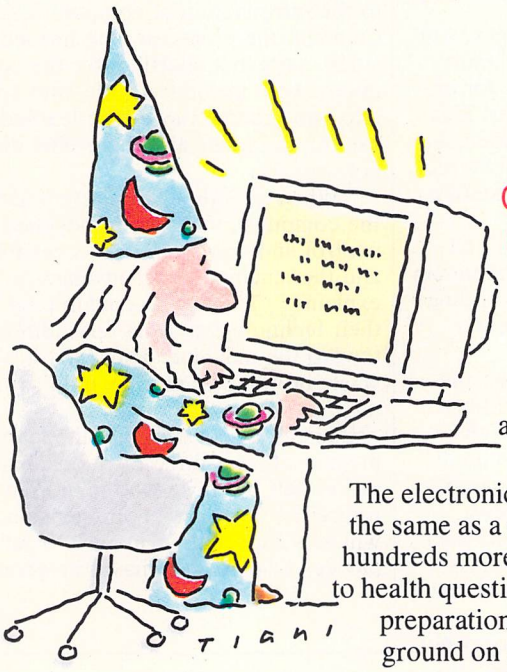
I try to check into *Online Today Electronic Edition* daily but, when I cannot, I always go back and catch up on the news. I consider *Online Today Electronic Edition* an essential provider of important news, much of which I do not find elsewhere. I also enjoy the witty commentaries within the stories, especially in the "Behind the Screens" and "Quotes" columns.

Mike Weiner, President
Microlytics Inc.
East Rochester, N.Y.

Software Review Correction

There was an error in the captions for the reviews of Graphwriter and Picture Perfect (January issue, pages 36-37). The caption for the chart on page 36, "Picture Perfect combines charts and graphs," should have read "Graphwriter combines charts and graphs." The caption for the chart on page 37, "Graphwriter excels in display options," should have read "Picture Perfect excels in display options." The transposition of the captions contradicts the text in the middle column on page 37 and erroneously shows the exact reverse of the difference between the two programs.

Encyclopedia Electronica!



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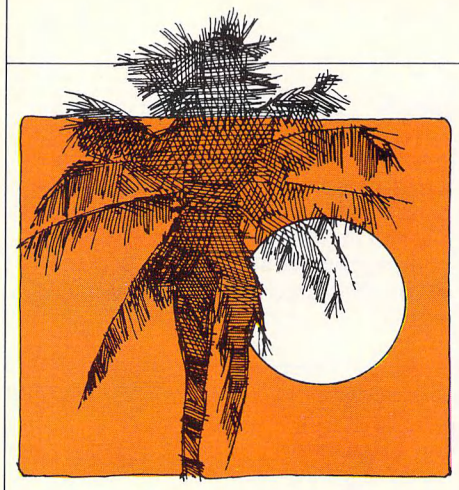


Florida Sets Pace For Micro Competency

Florida, best known for oranges, sunshine and vice cops who drive luxury cars, may soon become famous for another local asset: computer-smart kids.

The Florida Department of Education is preparing to launch a computer literacy program next year to equip the state's students with computer skills.

The idea is to bring students in all school districts up to at least a minimum computer competency level, according to Peter Lenkway, the department's computer education specialist.

Lenkway noted that in the past the state's computer resources have been concentrated in wealthier school districts, leaving less well-heeled schools to fight among themselves for scarce, state-provided computer resources. Now virtually all of the state's schools have at least one computer per classroom, and it is time to put those systems to use.

Florida's 1983 Education Reform Act mandates that each public school student meet certain minimum performance standards on the computer. Students will be tested in third, fifth, eighth and 11th grades. In the third grade test that will be performed next year, students will have to show that they can turn a computer on and off, handle software without damaging it, work a keyboard, read from a video display and use a program that has already been loaded into the computer.

Students who fail the test will receive remedial instruction and take the test again. If they cannot pass the test by the end of the third grade, they will be left back a grade.

Further details are available from the Florida Department of Education, 904/488-1234.

— John Edwards

Computers Ignite Human Passion

Despite being such cold, impersonal things, computers have a way of igniting human passion.

Take, for instance, the communication department at Ohio's Cleveland State University, which, in a joint project with ITT, recently automated the office and initiated an electronic mail system. ITT agreed to supply the equipment in exchange for some academic study of the effects of the computer and electronic mail on the department's staff.

What happened to this department — filled with communications experts — is typical of how most organizations react to the introduction of computers. Carl Camden, the professor who headed the study, says that shortly after the computers were introduced, the staff split into two groups: those who learned to use the machines and those who did not.

"When an individual masters use of the computer, that person possesses control and views himself as capable and the machine as a convenience," he explains. "Those who couldn't get past their technological fears felt indifference toward the machine. They said it was a waste of money, and they didn't trust it."

Camden discovered that the learning process creates three emotions: exhilaration, felt by those who figure out how to use the computer; apprehension, which is especially evident in older employees who seem to have the greatest difficulty adjusting; and conflict, by those who feel they have to conquer the machine.

But Camden says that once the initial learning was completed, there were several major changes in the way the staff members communicated with one another.

"Everyone made claims of efficiency," he says, noting that because of the electronic mail system there were fewer phone calls and interruptions. The department of 20 people now sends an average of 6,000 electronic mail messages a month.

Another result was "a dependency on the computer, with many saying, 'I can't live without it.' We had to bring them in screaming and yelling, but when there was a threat that the terminals would be taken away, people were up in arms," Camden recalls.

These professors, who spend their lives studying communication theory, discovered electronic mail forced the creation of a new set of communication rules. For instance, they discovered that sending thank you messages was cumbersome and a "rule" emerged to prohibit such responses. "Now it is a rule that if you want a response, you have to ask for it."

Finally, he says there is an increase in office humor. "There is a lot more joking going on with people using the computer to be funny."

For information, contact Professor Carl Camden, Department of Communication, Cleveland State University, Cleveland, OH 44115.

Online Learning Comes of Age

Electronic education must be coming of age as the venerable Harvard University has embarked on this high-tech method of study.

After receiving a grant of more than a half-million dollars from Annenberg/Corporation for Public Broadcasting and assistance from the University Tech-Tel Corp. and the Cambridge Tele-Teaching Group, Harvard is developing an innovative calculus course using telecommunications instead of a classroom.

This is no simple project. Students will have IBM-compatible computers that will function as desktop electronic blackboards. Special modems will allow simultaneous transmission of voice and data over single telephone lines so that any participant can be heard by the others. Up to 58 student stations can be connected to the professor.

Students participating in The Calculus Project will have the option of attending electronic classes on campus, at home, at work or at one of several "learning sites" in nearby towns.

Professors will hold "electronic office hours" and will work online with students who need extra help with homework problems.

For information, contact University Tech-Tel Corp., 4720 Montgomery Ln., Suite 1100, Bethesda, MD 20814; 301/652-0871.

— Cathryn Conroy

Robot Tends Disabled

The future has arrived with the development in Israel of a nursing robot designed to care for the physically disabled.

Researchers at the Technion-Israel Institute of Technology are perfecting a sophisticated nurse robot operated by two-word commands, such as "Sink-Move" (it wheels to the sink) and "Home-Move" (it returns to the person). The robot can perform a variety of tasks, including opening or closing a cupboard, window or door, replacing a video cassette and even preparing a simple meal.

The nursing robot has three major components: a self-propelled, computer-controlled carriage, the robot itself and a fixed source of radiation, according to Johan Borenstein of Technion's robotics department.

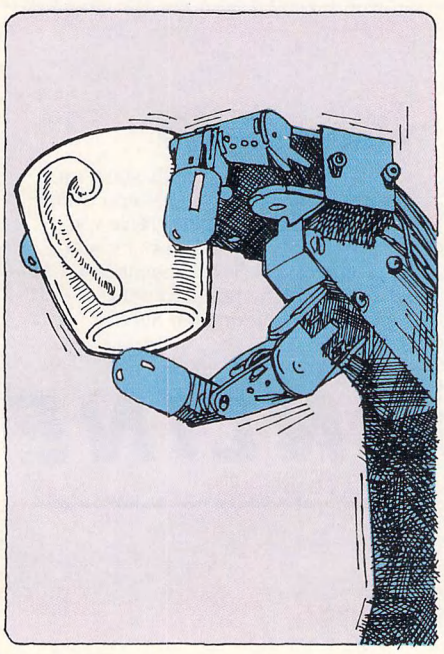
"The carriage, equipped with sensors to help it avoid or overcome obstacles, moves in response to voice signals. Spoken commands activate the robot arm and activate numerous possible tasks," explains Borenstein.

A direct telephone link enables it to dial a number on request or if an emergency occurs and help is needed. The robot "sees" with an "eye" similar in design to a camera rangefinder.

Target price is $10,000, and it should be available soon.

For information, contact the American Society for Technion, 271 Madison Ave., New York, NY 10016; 212/889-2050.

— Cathryn Conroy



Computer Changes Student Body Mix

Congratulations to Shiprock, N.M., and its all-girl high school.

Earlier this year Shiprock High School, like most schools, had a student body almost evenly divided between boys and girls. But thanks to the miracle of computers, overnight, all of the boys became girls.

It was a computer error, of course. Administrators were transferring records from one computer to another, and somehow all of the M's became F's.

Principal Dennis Seyfert said he has no idea why the computer would play such a nasty trick on Shiprock. The school's staff has corrected the records the old-fashioned way — by hand.

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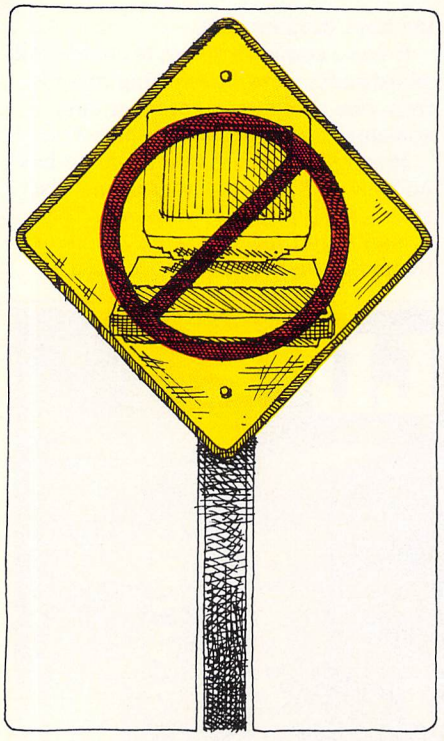


Senators Support Low-tech Products

Have you had it up to here with computers, disk drives, modems, printers and the other gadgets cluttering up your home? So have the two Democratic US Senators from Illinois.

Paul Simon (not the rhymin' Simon) and Alan J. Dixon have come down defiantly on the side of low-tech. In fact, these guys are 100 percent in favor of rubber insoles, beach balls, brassieres, ice cream scoops and other merchandise so boring that even the Soviet Union isn't interested in getting its hands on the stuff.

Speaking before a recent conference of low-tech manufacturers, Simon said, "It sounds very academic to say we've become an information-oriented, service-oriented society. But the reality is, if we are going to maintain a quality of life in this country, we're going to have to continue to produce concrete things." (Presumably Simon means objects like sidewalks, ornamental flower pots and in-ground swimming pools.)

Dixon noted that low-tech businesses "manufacture the things you sit on, the things you wear, the things you eat." (Which, we presume, doesn't include sidewalks, ornamental flower pots or in-ground swimming pools.)

Computer Program Counsels Families

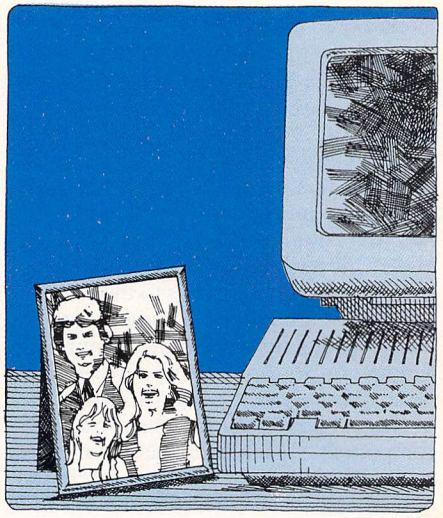
Competing siblings, rebellious teenagers and uncommunicative spouses now have some high-tech counseling help in a new computer program called "Family Communications."

Developed by Target Communication, the program is designed to let family members learn more about each other and, as a result, improve family relations.

"The program evaluates each family member and analyzes behavioral styles and how those styles intermingle with other family members," says Bill J. Bonnstetter, chief executive officer of Target Communication. The behavior styles are analyzed through a simple question-and-answer series.

A printout is developed to evaluate the family in detail and give specific advice and programs for improving relations and communications with each member. Various ways to improve or "blend" styles with one another are recommended.

Bonnstetter claims the new program can help families in improving communication, reducing conflicts, developing a



self-motivational climate, developing trusting relationships and promoting understanding.

Retailing for $59.95, the program is designed for MS-DOS computers.

To order, contact Target Communication Corp., 810 12th St. NW, Mason City, Iowa 50401.

— Cathryn Conroy

NSF Grant Funds Academic Link-up

The National Science Foundation has made a two-year, $1.2 million grant to Cornell University to fund the first phase of a data communications network linking 15 academic research institutions and many industrial laboratories in New York State.

The system, to be called the New York State Education Research Network, will be connected to NSF's "backbone" network, which provides access to six supercomputer centers funded by that federal agency. The network will be administered by NYSERNet Inc., a non-profit company.

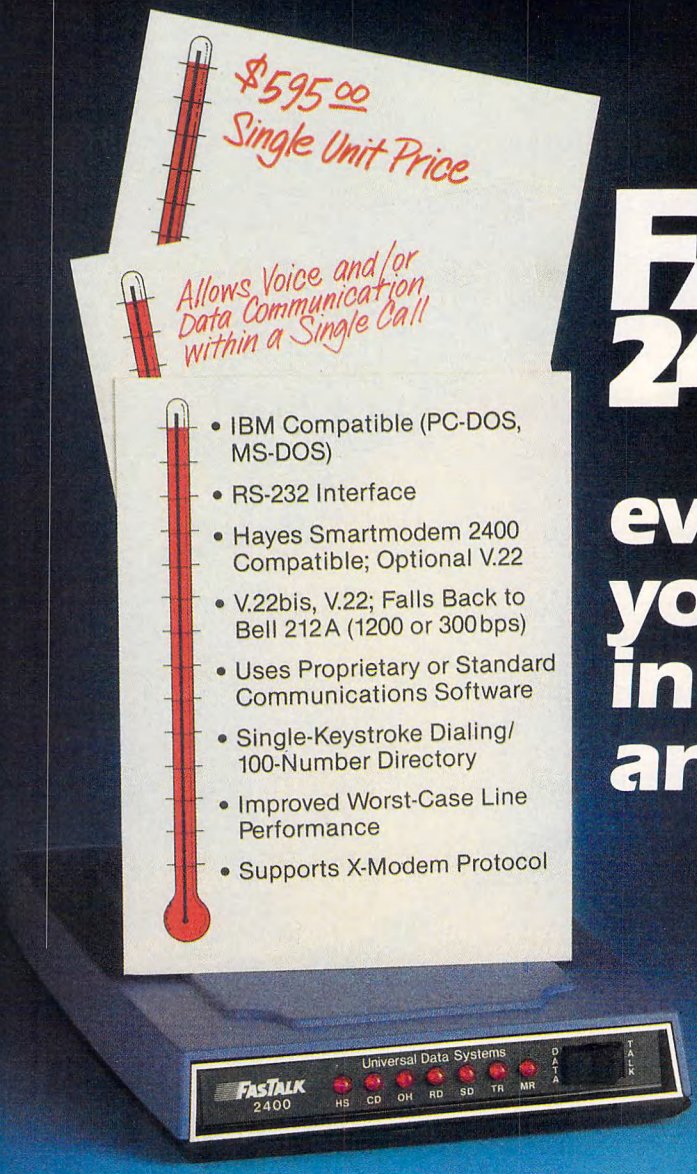
NYSERNet will "greatly enhance the ability of hundreds of researchers to use supercomputing resources, encourage intercampus cooperation and provide for scholarly collaboration, according to Dr. Kenneth G. Wilson, director of Cornell's Center for Theory and Simulation in Science and Engineering. This regional network is essential to gain effective access to remote supercomputing facilities and to provide an infrastructure for cooperative research."

Additional details are available from the National Science Foundation, 1800 G St., Washington, DC 20550; 202/357-9498.

What's Going On?

If you want to know what's going on around CompuServe, check into *Online Today Electronic Edition*. Here you'll find constantly revised news for and about the CompuServe community. GO OLT-50 from any prompt on the CompuServe Information Service.

ONLINE TODAY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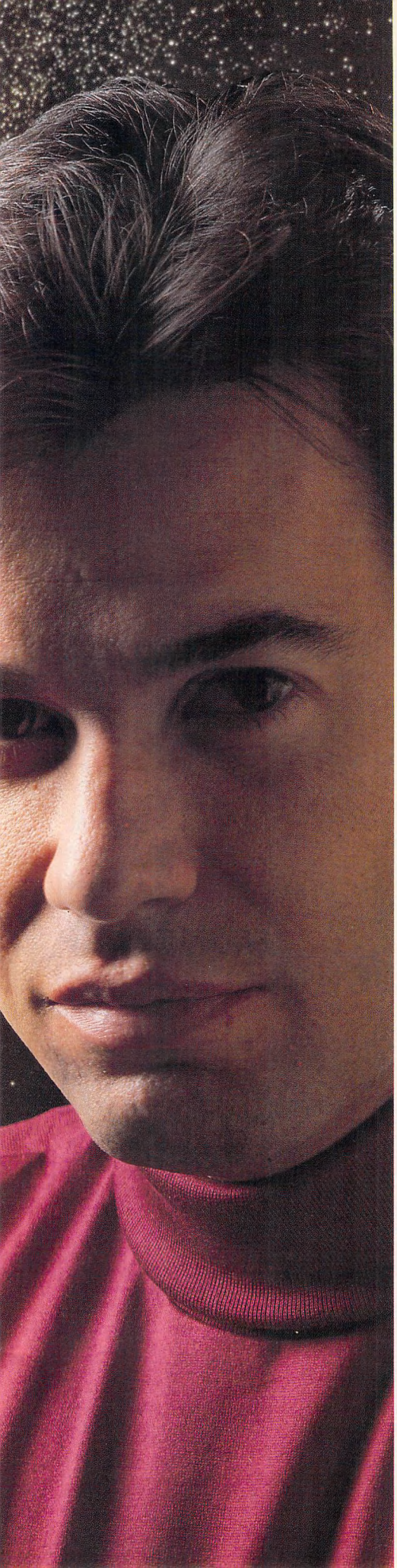


FEATURE

HIGH TECH QUEST

Looking For Answers in All the Right Places

by Yvonne H. Burry

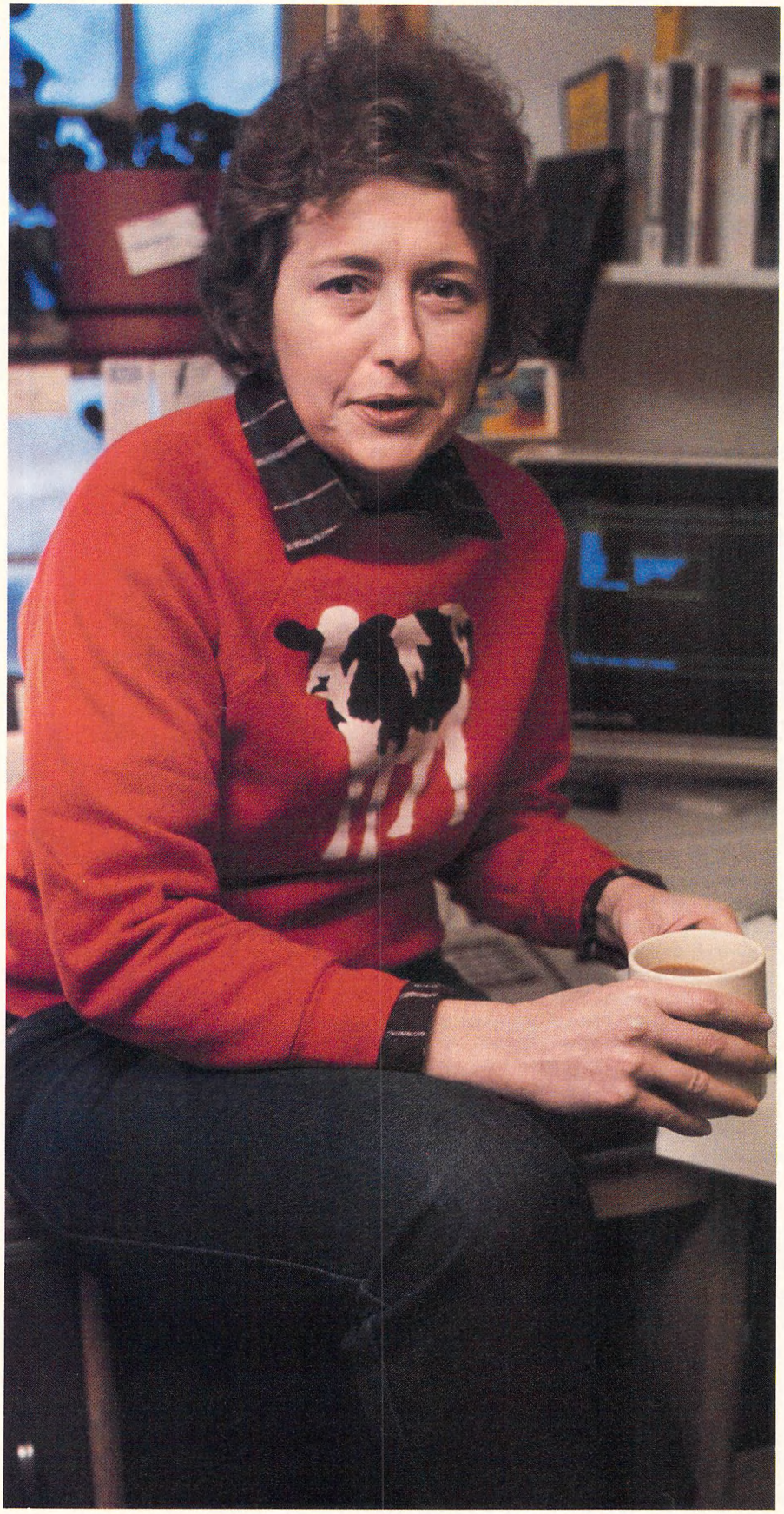
Whether the topic is natural language, deep sky or state-of-the-art specifications for digital sound, high technology is a word game. For those who can throw around the buzzwords, discussions can sound convincing, but how many people really understand high-tech developments? The incredibly fast-paced progression of some fields is challenging and the wealth of printed materials can be awesome.

To find a person knowledgeable in the technology and willing to answer basic questions patiently, check into CompuServe's forums.

In the high-tech areas, forum activity is hopping. The Astronomy Forum (GO ASTROFORUM) and Space Education Forum (GO SPACEED) recently have gone online. In the cluster of forums focusing on emerging technologies, lively information exchanges occur between querying CompuServe subscribers and eager forum administrators, who make their livelihoods in the particular technical areas. A healthy mix of rank novices, hobbyists and professionals, whose business is to compete in high-tech endeavors, tap into the forums, and everyone is there for the same reason — to find out what is happening just a bit before the rest of the pack.

Kathy Ennis, CompuServe product marketing specialist, cites several areas in the science and technology area that "bring intellectual resources to us." For example, "*Dr. Dobb's Journal* (GO DDJ), was one of the first computer magazines on programming and artificial intelligence. For those true-blue hackers, the Dr. Dobb's Journal Forum provides the real stuff — programming languages, techniques, tools, utilities and algorithms. An extension of *Dr. Dobb's Journal* print magazine, the forum (GO DDJFORUM) allows stimulating discussions and information exchanges. A magazine subscription is not a prerequisite for forum membership but is suggested for members who want to get the most out of the Dr. Dobb's Journal Forum.

Levi Thomas is Dr. Dobb's "Wizop," or "wizard" forum administrator. With several assistants, she offers bulletin board areas, data libraries, columns on topics such as "C," and conferences with guests including Lee Felsenstein, populist engineer, toastmaster of the Homebrew Computer Club and designer of the SOL and Osborne I computers. A popular conference last year featured Borland President Philippe Kahn; Mark Chisnell, a University of Southern Cali-



fornia professor; and Michael Swaine, editor-in-chief of *Dr. Dobb's Journal*, discussing "Prolog and the Future of Artificial Intelligence."

Because AI is the "hot button" in technology today and the AI thread appears so often online, CompuServe also provides support in artificial intelligence through the AI EXPERT Forum (GO AIE1000), sponsored by *AI EXPERT* magazine, published by CL Publications. Texas Instruments, Digitalk, Intellicorp and Whitewater are among the companies that actively support the AI EXPERT Forum and their products online. The magazine serves as a consultant for private business and educational institutions, artificial intelligence and microcomputer applications.

Forum Administrator Susan Shepard and her four assistants have had experience with AI. Shepard oversees the "AI Insider" column. Besides this column, also offered through the *AI EXPERT Electronic Edition*, features include "AI Apprentice" and "Expert's Toolbox."

•In the AI EXPERT Forum you will find monthly issue program listings, supporting codes and executable programs for many machines.

Forum members can use public domain expert systems. "Because it is a hot field, the price of commercially available material is high," Shepard says. "Here you can get your feet wet without committing several thousand dollars."

The AI EXPERT Forum message area continues to be exciting. "The businessperson who is flooded with information has a place to discuss questions," Shepard says. There are regular online conferences, but when no scheduled event is under way, forum members can link up for informal conferences.

Those cruising the forums will find that topics and conference guests frequently overlap. For example, Marvin Minsky, father of AI and co-founder/director of Massachusetts Institute of Technology's AI laboratory, appeared in the OMNI Forum (GO OMNIFORUM) to discuss his new book, *Society of the Mind*, household robots and the future of AI research. Minsky told the packed forum audience that he presently is trying "to use AI to develop a new theory of psychology."

The OMNI Forum features an electronic version of the popular magazine. This area also has had an online conference with Isaac Asimov on 21st century life. It regularly contains write-ups on in-

Supporting artificial intelligence: *Shepard*

novations. "For example," says primary forum administrator Nancy Lucas, "in August 1985 we featured a discussion of the possibilities of interstellar travel using a souped-up screen door and a floating hotel off the Australia coast." Such innovative topics often can be found in the "Continuum" section of the *OMNI* electronic magazine (GO OMNI).

One notable OMNI offering was a futuristic online trial that occurred late last year. The victim was a man, found dead from hypothermia in mid-July. The accused was the man's temperature-controlled house, which had homosexual tendencies. Noted author Arthur C. Clarke (*2001: A Space Odyssey*) posed the scenario. Defense attorney F. Lee Bailey and prosecutor Roy Grutman staged the trial online. Conference visitors (the trial spectators) were treated to a spirited debate on crimes of passion, the death penalty (for the house) and rehabilitation ("some minor reprogramming" to make the house once again a "responsible habitat"). In the end it became obvious that the house should have been programmed to have a conscience.

The online spectators (the jury) had the ability to vote whether the house was guilty or not guilty. The jury decided that the house was guilty of homicide. The trial was based on Clarke's new book, *July 20, 2019: A Day in the Life of the 21st Century.*

Because the OMNI Forum is derived from a magazine source, the data libraries have new entries each week and include past *OMNI* articles and files gathered from press releases, news services and other media sources.

The Whole Earth Software Forum (GO WHOLEEARTH) provides reviews of software in public and commercial domains. Forum administrator Art Kleiner encourages members to ask for specific software package referrals and to submit reviews. ("You get paid for them if they are used," he says.) But Whole Earth also is a place to talk about "the effects of the new technology — particularly computer technology — on people," (subtopic 8). Subtopic 10 features communications structures (how networks such as CompuServe affect conversations and the quality of contacts), while other areas offer discussions on telecommunications from a detailed, technical stance (subtopic 2).

In Whole Earth you also can find out what is new in the Electronic Networking Association. Here, uploaded articles to the Netweaver newsletter feature topics including "Gumbyvision" (the evolution of flat computer screens), Computer Network Addiction and technology linkage to promote peace.

Kleiner's most unique conference guest probably was a man named Robert, who pulled an ultimate bankruptcy maneuver by establishing himself with almost 30 credit cards, spending like crazy for several months and then developing a method to "sweet talk" his bankers. With candid remarks such as "Truth has no place on the credit-gatherer's agenda," Robert offered a view of alternative strategic borrowing. Other participants in that conference (or those who access the data library and read or download the file) may get a hint that with electronic banking such escapades will not be the same.

The Consumer Electronics Forum (GO CEFORUM) highlights more ordinary topics including audio, video, software, satellite systems, telephone equipment and radar detectors. Forum administrator Dawn Gordon and others

Teachers in Space Create Galactic Network

The last thing Dick DeLoach wants for the Space Education Forum (GO SPACEED) is a coffee klatch. No casual teachers' lounge chatter is wanted here. This is going to be meat-and-potatoes information. So DeLoach is working with eight of NASA's Teacher in Space program finalists to develop the activity/projects orientation of the forum that provides one of CompuServe's most unique assets.

The January 1986 Challenger tragedy and finalist Mike Metcalf's decision to leave the program to run for political office whittled the program down from its 10 original members. Even so, space exploration remains an exciting topic. Part of the reason for this is the continuing efforts of the TIS finalists to focus on teachers and young people. . .and keep the mission going.

Although the finalists worked for NASA after their initial training period, they are more scattered now. Some have continued to work at NASA locations around the country. However, Bob Foerster, from Indiana, and runner-up candidate Barbara Morgan have returned to classroom work.

Yet all eight finalists, the cream of

Linking up Teachers in Space: *DeLoach*

America's teaching corps, are participating in the Space Education Forum, offering their time and expertise online. As they plan special projects, conferences, online classes, a database of activities, and possibly some global classroom projects, the TIS finalists are blending their special knowledge and viewpoint with the curiosity of teachers and students linked by CompuServe.

The TIS finalists are busy participating "in exciting projects and deciding in what direction the Space Education Forum will go," says DeLoach, who works for NASA's Langley Research Center. Under the leadership of assistant forum administrator and TIS finalist, Dave Marquart, and conference coordinator, Terri Adams, the executive director of the TIS Education Forum, a nonprofit group, all eight finalists will remain active in forum activities.

Now online, the Space Education Forum includes conferences, bulletin boards, data libraries and the usual forum trappings. "It also will provide a medium for rank and file, grass roots supporters to contact the technology movers and shakers," DeLoach says. Experts will prepare textfiles for the data libraries. Users are encouraged to ask questions, "especially the kind of questions you wish the reporters would have asked." There also will be guest speakers.

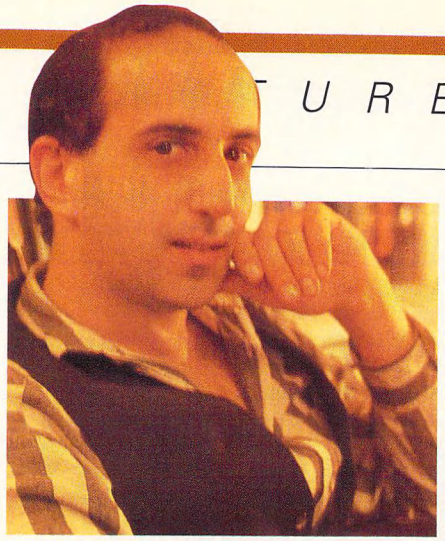
The Space Education Forum also has the potential to become a major classroom resource for teachers, students and other interested folks online. They can tap the ultimate experts when preparing for space-topic teaching units. Subscriber input will shape the forum's direction, too. DeLoach says, "How many times does a person sitting in a den in Des Moines get the chance to ask an astronaut about weightlessness?"

— YHB

answer questions from their experience. Message boards, data libraries and conference facilities are available in each of the subtopics. For example, Data Library 1 includes "reviews of video products and contains a file of who's making what," Gordon says.

At a recent Consumer Electronics Forum conference, Sony product communications manager Marc Finer was queried about the compact disc market. When asked if performance is relatively equal among products above a certain price level, Finer offered information and quickly turned the discussion to the next upgrade of CD players. He said realm-digital output ports will allow a new genre of digital interface in the future. Finer also commented on the Sony D-7 Discman, which was due for release in January and slated to feature pulse width modulation IC and to allow for a 40 percent improvement in power consumption. There also was a question about recordable CDs, supposedly to be available in mid-1987.

Another cluster of high-tech forums is located in the Home, Health and Family area of CompuServe. The topics are "heavenly" here. Linda Thoirs, CompuServe product marketing specialist, says that during the Halley's Comet



Examining effects of technology: *Kleiner*

watch many CompuServe subscribers met Dick DeLoach, administrator of the Space Forum (GO SPACEFORUM) and a NASA employee. The all-night comet watch and the recent, vigorous Mars discussions were subscriber-supported events that prompted the formation of a separate venture, the Astronomy Forum.

Before the tragic Challenger disaster that prompted another all-night forum session, DeLoach was planning the Space Education Forum. That plan is now a reality (see accompanying article).

New features added through the Space/Astronomy display area include the Yale Bright Star Catalog (with data on more than 9,000 stars viewable by amateur astronomers), an online collection of current space and astronomy events, an area for amateurs to upload archival notes on their sightings and a deep sky feature. The subtopics in the Space Forum include general science topics, military aspects, exploration, development and more.

In the conference mode, the Space Forum has had many notable guests, including Arthur C. Clarke (of *OMNI* trial fame). That Space Forum conference set a record for the farthest geographically-located terminal — Clarke logged on from his home in Sri Lanka. This feat was duplicated during the more recent OMNI Forum online trial conference.

Another conference with guest James Oberg, a national authority on the Soviet Space Program, focused on US/Soviet space cooperation and long-term Soviet space goals. The highlights of this event were the high-tech data exchanged and Oberg's online prediction that "factors strongly (greater than 60 percent) indicate a new Soviet manned launch." This prediction came true, and the participants in that forum had the scoop before the press.

Yvonne Burry is a free-lance writer from Columbus, Ohio. Her CompuServe User ID number is 76703,3057.

DeLoach Tests Outer Limits

Early in 1982, Dick DeLoach first logged onto CompuServe in search of online investment information and wandered into CompuServe's CB Simulator.

Today DeLoach has combined his work experience — he is a National Aeronautics and Space Administration scientist at Langley (Va.) Research Center — with CompuServe.

DeLoach, 39 and a NASA employee since 1967, is the administrator of three CompuServe forums, including the Space Forum, one of the oldest forums on CompuServe.

The Space Forum began "as sort of a club for technical people," and developed into something much more broad, according to DeLoach.

As the CompuServe network evolved and grew, the Space Forum also evolved into an information source for all people, including advocates of space exploration who meet to exchange ideas about how to further their cause.

Two additional forums were born late last year from previous Space Forum subjects. The Astronomy Forum (GO ASTROFORUM) is for professional and amateur astronomers to meet and learn more about the sky. The Space Education Forum (GO SPACEED) is a cooperative venture between DeLoach and the Teacher In Space Education Foundation, an organization founded by participants in the NASA Teacher in Space Program.

DeLoach said his involvement in the CompuServe network has come a long way since he first logged on.

"I will never forget that first night I learned about communicating with others in a real-time conference. I wandered into the CB Simulator out of curiosity. Eventually, I typed 'Hi,' " DeLoach said.

"At the time, I did not know exactly who the people were I was conferencing with. I thought they were from Virginia where I live or the southeastern Virginia branch of CompuServe. But one of the people who responded to my greeting was from Alberta, Canada. It suddenly struck me that I was communicating with someone on the other side of North America. I became a fan of that kind of communication immediately," DeLoach said.

Passports into the High Tech Forums

Dr. Dobb's Journal	GO DDJ
Dr. Dobb's Journal Forum	GO DDJFORUM
AI EXPERT	GO AIE
AI EXPERT Forum	GO AIE100
OMNI On-Line	GO OMNI
OMNI Forum	GO OMNIFORUM
Whole Earth Forum	GO WHOLEEARTH
Consumer Electronics Forum	GO CEFORUM
Space Forum	GO SPACEFORUM
Space Education Forum	GO SPACEED
Astronomy Forum	GO ASTROFORUM

On CB, DeLoach ran into a "space fan" who had an idea for a forum devoted to space issues and space information. DeLoach, being a NASA research scientist, excited the other subscriber.

"He asked me if I would like to help him get CompuServe to set up a forum for space issues. I said I had no idea what a forum was, but that I would help as much as I could."

DeLoach took charge of the forum, which opened in September 1982. "NASA approved as long as I did not represent myself as a spokesperson for NASA policy, did not log on from work and did not represent the Space Forum as being sponsored by NASA," DeLoach said.

The forum generated excitement system-wide in April 1985 when it hosted a conference with author Arthur C. Clarke as the guest from his home in Sri Lanka.

The milestone conference came about after members of the Space Development Conference had contacted DeLoach in 1984, seeking a "high-tech gathering" at their conference the following year.

"One of the conference organizers was an associate of Clarke's. He thought he could approach Clarke if I could help solve the technical problems."

The deal was struck and work began to get Clarke online from Sri Lanka. DeLoach talked to several of Clarke's associates, including movie director Steven Spielberg.

"Clarke is an advocate of global communications as a key to world peace," DeLoach said. "The night of the conference, (April 25, 1985) everything worked cleanly, although it was a little tenuous because of the distances involved."

"The Space Forum has come a long way since those early days when we were excited about the early space adventures. We have lots of youngsters involved in the forum. It is rewarding to see them so excited about space exploration."

DeLoach said there is more excitement in store for the Space Forum in the future. "I believe that someday we'll have an online conference from space with one of the shuttle astronauts. There has already been discussion about it and the technology is available."

DeLoach says this is only the beginning for the forums and for space explorations.

— Dave Peyton

Soviet and American Youth Discuss Space

They were ambassadors of a sort, trying with all their spirit and humanity to bridge the geographical and cultural differences between them.

Language did not seem to interfere, nor did politics. Perhaps they have some special touch and have something to teach the rest of us. They were, after all, mere children, but oh did their greetings of peace, friendship and cooperation sound large!

They came to one another bringing only their common interest in space exploration, these children with names such as Mikhail, Ulia, Uri, Oleg, Pavel, Tayana and Mary, Susan, Derek, Carolyn, Allen and Michael.

The 10 Soviet youth were representatives of the Young Cosmonauts, a group that is touring five cities in the United States, following a similar tour of the Soviet Union by representatives of the Young Astronauts.

The American youth were science and math buffs from around the country. They met in an unusual setting for communication between Soviets and Americans: online in a real-time conference in the Space Education Forum (GO SPACEED).

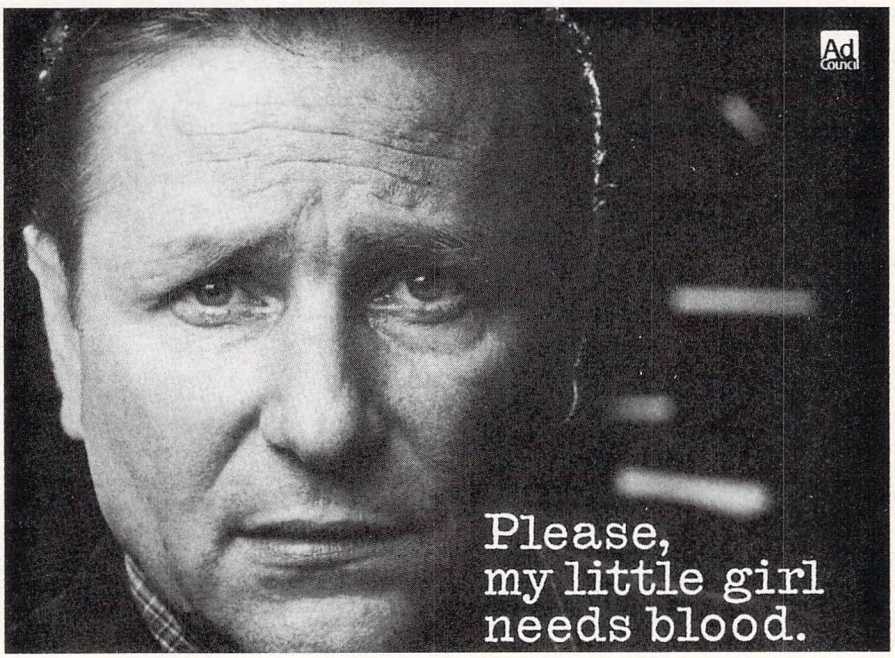
The US government has traditionally attempted to hide our technological advances from this age-old enemy, making this particular electronic meeting all the more poignant. In less than one hour, the children exchanged messages and questions and answers.

They look forward to a joint Soviet-American space expedition to Mars, they hope there is life on other planets and they believe all children in the world should participate in space through the creation of experiments. The Soviet youth expressed admiration for US space museums and planetariums and invited their newfound American friends to come visit their museums in Moscow.

To some onlookers such a conference may not be important. After all, no major problems were solved and many were just overlooked in the interest of goodwill. But something special happened — some special communication forming a bridge of peace was created between these children who will inherit our world in just a few short years.

Once you know the enemy as a people, it's that much harder to hate. And this was perhaps the greatest accomplishment of these young ambassadors.

— Cathryn Conroy



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Tech Talk

How to Ask Questions of Experts, Amateurs

Forum communication is unique because of the questions asked by participants, according to Dick DeLoach, Space Forum administrator.

"What happens in the forums depends on what you say . . . it's conversation-driven," DeLoach says.

If you have a good question, a wealth of high-tech information may come your way, depending on your ability to develop questions or plan for asking them. Most people who have tried to interview realize that there is no truly spontaneous question. Organized thinking and jotting down of questions are behind even the most casual inquiries.

There are many ways to question. OMNI Forum Administrator Nancy Lucas likes the "broad to specific" approach. Beginning with a general question — an inquiry about achievements or happenings in the particular field — and quickly moving to specifics, she covers all points. Recording key words or phrases can help keep the interviewer focused on the intended topic.

There are pitfalls associated with too many broad questions. It is important to ask specifics. Dawn Gordon, forum administrator of the Consumer Electronics Forum, says limited questions such as "What is the best VCR to buy?" are weak. However, adding specifics is a simple remedy. "You have to give examples of budget, lifestyle and features to get the most from a question," Gordon says.

"The strategy for a good question is to be as straightforward as possible and to express yourself clearly," DeLoach says. He notes that some people hesitate to ask questions of conference guests. That tendency comes when conference attendees feel everyone else online is an expert, DeLoach says. Generally, that is not the case.

Craig LaGrow, assistant forum administrator of the AI EXPERT Forum and editor of *AI EXPERT* magazine, says conference modes and the forum bulletin boards suffer an abundance of "lookiloos" — people who look but never take action, LaGrow says. "That point is most disturbing. So many people are in background mode. There are a lot of people who should ask questions. It's the humble trading of knowledge."

"It's amazing how receptive the experts are to helping people online. It's friendly, not show-off-like, help."

Craig LaGrow
AI EXPERT Forum

"Begin with general questions and then quickly move to specifics. Record key words and phrases."

Nancy Lucas
OMNI Forum

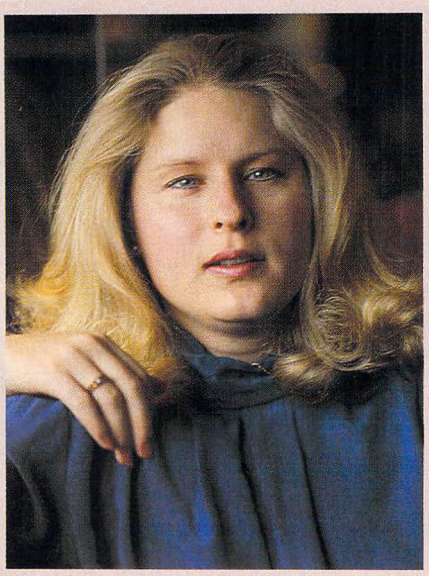
Even in the AI EXPERT Forum, LaGrow says there are many experts and amateurs. "It is amazing how receptive the experts are to helping people online," he says. "It's friendly, not show-off-like, help."

In the fine art of question asking "it is necessary to find the right place online, to know the conference flavor and who the movers and shakers are," says Dan Shafer, author of six high-technology books (including *Silicon Visions*), and a familiar CompuServe conference celebrity. Shafer likes questions that are prepared ahead of time, so they can be packed precisely with information that clearly says something about the questioner's need or motivation and prevents miscommunication.

One proven question strategy LaGrow suggests will do well in either conference or message board modes. "It is important to be friendly and honest. Say who you are, and where you're coming from. If someone comes online and says, 'I am a third grade teacher. Should I approach AI? Will it have an impact on my life?', people respond. You discover like-minded people and it is better to be honest than to pretend you know something you do not," LaGrow says.

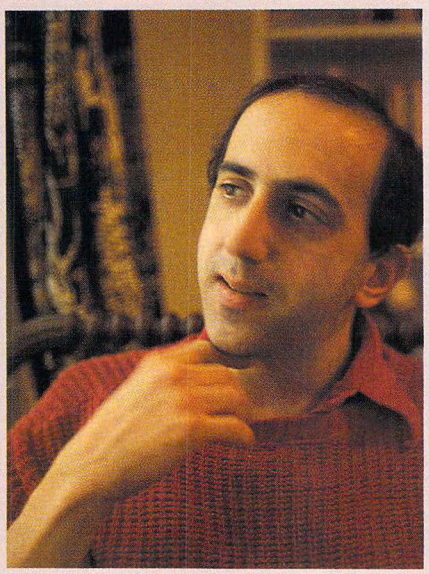
DeLoach recommends using message areas and addressing straight-forward questions to "All." Beyond being a good proving ground for questions that might be posed to conference guests, message areas usually produce a variety of responses, including reading suggestions about specific data library offerings or good books.

If you do not get a good response, Shafer says to pose the questions in other forums (or perhaps to other conference speakers) until you find the best people to answer your questions. People and topics can be spread through sever-



"Limited questions are weak. You have to give examples of budget, lifestyle and features to get the most from a question."

Dawn Gordon
Consumer Electronics Forum



"Start with a broad question and then focus on specifics. If a question does not work, rephrase it and try again."

Art Kleiner
Whole Earth Forum

al forums overlapping slightly. Shafer says the important thing is to "check back, acknowledge, answer and follow up," to develop a good rapport with people who use the forums.

Marvin Minsky, AI guru from the Massachusetts Institute of Technology and a CompuServe conference guest, is a proponent of "reading a good book," especially one that opens doors for further exploration. He suggests that readers look for key words and follow through while searching data libraries or message threads.

For someone who really is an amateur in a high-tech field, forum data libraries offer files of timely information and previous conference transcripts.

Art Kleiner, Whole Earth Forum administrator, recommends a more basic starting point: go to a public library and find a book on the technology of interest that is aimed at older children. Then begin to formulate questions. "Do not let things drop," Kleiner says. "Do not be afraid to ask 'dumb' questions. That is how you learn the most. Start with a broad question, then focus on more specific things. If a question does not work, rephrase it and try it again."

The Experts Speak

Want to know what the experts think about high tech? We posed a few basic questions to past and potential conference guests. While some of the answers are predictable, others hold surprises.

In general, what has been the biggest breakthrough for the advance of your technology in this decade?

Dan Shafer, noted high-tech author: "Realization of real-world programming (language) and AI development tools on microcomputers."

Dave Marquart, database administrator for the Space Education Forum and Teacher in Space finalist: "The impact of the microcomputer . . . centering on the advancement of microprocessor manufacturing technology."

Bob Foerster, another TIS finalist: "Wordprocessing is the biggest breakthrough. It encourages communication, which is the basic advantage humans have over other animals."

What breakthrough by the year 2000 would advance technology the most?

Marvin Minsky, MIT AI persona: "Better theories of how the mind works."

Shafer: "Our learning to use light and plasma optics more effectively for communications."

Marquart: "In addition to microgravity research, I think we should look forward to great advancements in the light-fiber (fiber optics) area of communications."

Foerster: "Artificial intelligence coupled with robotics. 'Pick up the socks, please Hazel!' "

In your technology, what is the next major hurdle you expect to be solved, conquered or controlled?

Shafer: "True voice-speech recognition in AI."

Marquart: "Probably the greatest hurdle is just to keep current with the equipment, techniques and materials. I think the underlying problem of the future will be for schools (teachers, students, parents and communities) to provide the information and desire for the population to be ready for *their* future."

Foerster: "I hope to see better interactive laser disks for the student instead of the sequential computer-aided instruction that we see now."

What worldwide political situation in this decade will most affect advancing technology?

Minsky: "None will very much."

Shafer: "How future trade and technology relationships between the United States and Japan will be — or fail to be — worked out."

Marquart: "The ease with which knowledge can be transported around the world . . . I think we will be seeing more work being done at home in the 1980 and '90s."

Foerster: "Like it or not, I really think that the SDI program will give us some stuff that will make Buck Rodgers look boring."

— YHB

AI Forum Presents Technology Contest

Artificial Intelligence has been romanticized and defamed for 25 years. If you want to see how much you know about AI, the predicted booming applications area of the future, get ready for CompuServe's "Actually Interesting AI" contest, starting Tuesday, Feb. 10.

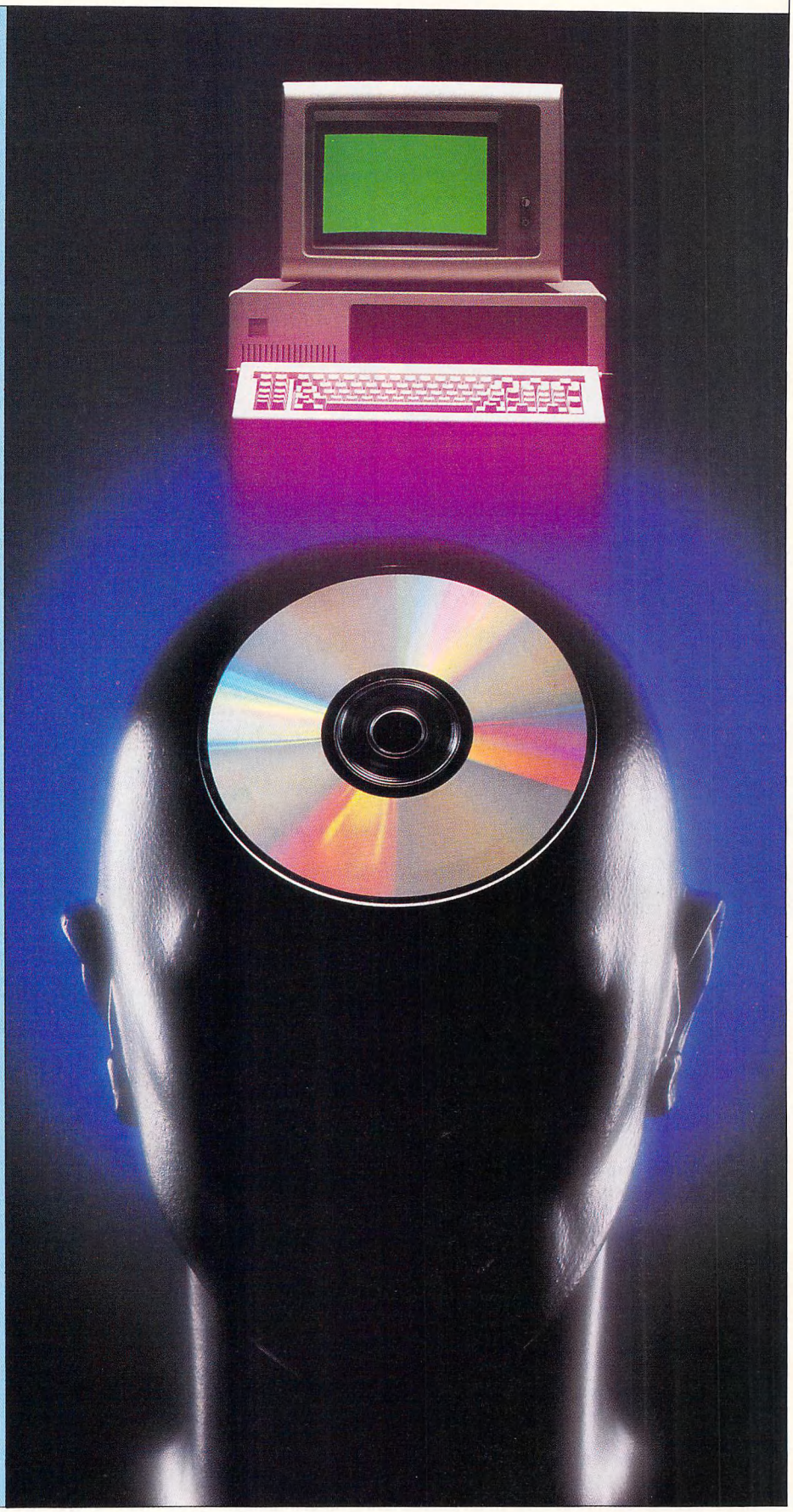
The contest will run for two weeks, and the four individuals with the highest aggregate scores for the two weeks will win prizes. Whatever your score, you will have a chance to become better acquainted with artificial intelligence and expert systems.

"Actually Interesting AI" offers quizzes about famous people, places, events and infamous highlights in the pursuit of thinking machines. For example, do you know where and when the first reasoning machines conference was held? Could you correctly identify successful AI projects? Do you know which AI lab is developing a program that could improvise Scott Joplin's piano music if given a melody line? Could you identify the everyday computer tools once considered to be AI?

Whether you are a LISP programmer, an expert systems developer, a computing professional or a beginner, you can test your knowledge of computer history and the research and development facets of the next computing generation. You could win an expert system shell to build your own expert system from Texas Instruments, PERSONAL CONSULTANT EASY software, a PC SCHEME software package with LISP-language program development on the personal computer or other AI and expert system software tools.

The AI EXPERT Forum (GO AIE) includes executable AI and expert system software for higher-end personal computers, ongoing projects, a busy message board and the monthly listings of *AI EXPERT* magazine. Leave a message for Susan Shepard, primary forum administrator (76703,4326), and introduce yourself.

Beginning Feb. 10, you may access the contest by typing GO AICONTEST at any prompt on the CompuServe Information Service.



How to Keep Up With CompuServe's Changes

Any subscriber who tries to keep up with the services being added almost daily to CompuServe can tell you that it seems unachievable.

Old-timers — those who have been online for three years or more — can tell you that when the CompuServe Information Service was in its infancy, additions to the system (infrequent back then) were known immediately and were the talk of all subscribers.

As CompuServe's growth began a dizzying climb, things started speeding up. Today, even veteran users find it difficult to keep up with the new services. So novices should not think they take a back seat to veterans when it comes to knowing where to find things on the system.

It would be outstanding if someone could come up with a simple method to allow you and me to keep up with the CompuServe additions. Unfortunately, there is no single way. But there are a number of things you can do to keep up with additions to the system.

Your online defense against losing contact with topics of interest is the FIND command. This command, which is available throughout the system, connects you with an online index of services through a search feature. It can be used at nearly any exclamation point prompt (!) on the system. This is the prompt you usually stop at when you enter CompuServe and it is the prompt you most often see as you navigate the system.

To use the command, type FIND and press the Return key at the prompt. You will see the following:

Enter topic (e.g.stocks):

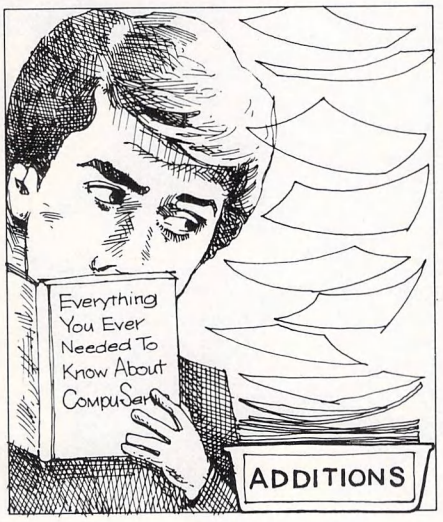
You then are connected to a search routine that locates a feature based on a "keyword" you provide.

A better, faster way of using the FIND command is to type FIND followed by a one-word description of what you want to search.

For example, let's say you are an Apple computer user and you want to find new services for Apple users. You would simply type FIND APPLE and press the Return key. The system goes to work and finds services of interest to Apple Computer owners. Here is the display from a recent search:

1 Apple Developers Forum [APPDEV]
2 Apple II & III Forum [APPLE]
3 Apple Users Groups Forum [APPUG]
4 Apples Online [AOL]
5 CompuServe's Software Exchange [SOFTEX]
6 MAUG (tm) [MAUG]
7 Macintosh Business Forum [MACBIZ]
8 Machintosh Users Forum [MACUS]

The list shows all areas of the system that might be of interest to Apple users. But it provides more than a simple list; it shows the location of the service inside the brackets. For example, to get to the Apple II/III Forum, you could type GO APPLE since APPLE is the reference word used with the GO command. Or if you want to go to the Apple II & III Forum from this list, simply type the number 5 and press the Return key at the bottom of the list and you will be taken quickly to that Apple forum.



The list of indexed descriptive words is extensive. For example, a comic book hobbyist can type FIND COMICS and be presented with two forums that might be of interest: the Comic Book Forum (GO COMIC) and the Science Fiction and Fantasy Forum (GO SCIFI).

Remember that the description you list after the FIND command must be one word only and should be as specific as possible.

The FIND command also can come in handy when you forget the exact location of a service. For instance, you may have found a place in The Electronic Mall that sells toys for hobbyists, but you can't remember the address. Instead of searching through the mall, you could simply type FIND TOYS at a prompt and Hobby Center Toys (GO HC) would pop up. In a few seconds you'd have the address and the opportunity to go there directly.

There are other ways of keeping tabs on what's happening on CompuServe as well. Here are some hints:

- You hold in your hands one of the best ways of keeping up with what's happening on CompuServe. The print edition of *Online Today* gives lists of services and special features on new services. Browsing through each edition can save you online time searching for new services of interest.
- The *CompuServe Almanac* is an extensive publication that gives you a chance to look at products and services in book form. This spiral-bound book contains a table of contents, an alphabetized product index, quick reference words and more. You can order it through CompuServe's Online Ordering Service (GO ORDER).
- And don't forget "What's New," offered weekly on the system, and CompuServe Community News, part of *Online Today Electronic Edition* (GO OLT). Both present short news articles about what's happening on the system, including new services and products. Both are valuable tools to help you keep current with CompuServe's changes.

Part of the excitement of being a CompuServe subscriber is watching the system expand to meet the needs of its users. But it can be frustrating as well. By using the FIND command and keeping tabs on CompuServe's announcements in *Online Today*, we can guarantee you won't get hopelessly lost in what may appear to be a swirling sea of change.

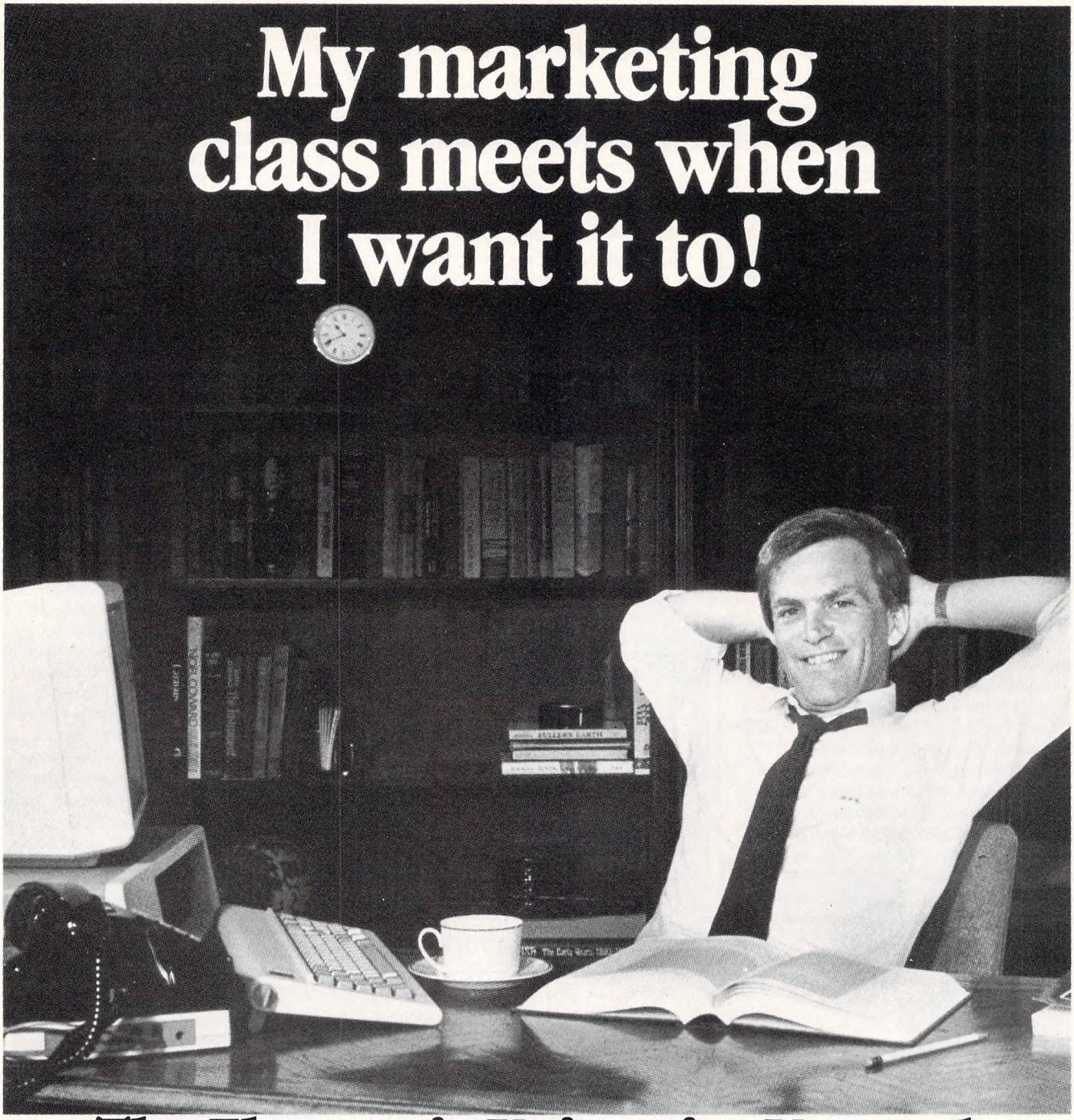
David Peyton is a co-author of How to Get the Most Out of CompuServe. *His CompuServe User ID number is 76703,244.*

What's Going On?

If you want to know what's going on around CompuServe, check into *Online Today Electronic Edition*. Here you'll find constantly revised news for and about the CompuServe community. GO OLT-50 from any prompt on the CompuServe Information Service.

ONLINE TODAY

My marketing class meets when I want it to!



The Electronic University Network

For some time I've known I needed a course that would fine tune my strategic marketing skills, but with a demanding job, a family, it's not easy to do. Then I was told I missed a promotion because I needed an MBA. Still, going back to school at my age seemed nearly impossible. With my work schedule, the kids, there just isn't enough time to go to campus.

Now I go to class when it's convenient for me.

By connecting my home computer to the Electronic University Network, I can choose from 150 courses from colleges and universities all across the country, and even earn an undergraduate degree, or an MBA. **I make college fit my schedule.**

The network has put personalized instruction at my fingertips by bringing the university to me, in my home or office, at my own pace, anytime. And I'm able to work one-on-one with expert instructors from excellent schools. In effect, I have my own marketing mentor.

What's more, since the credit I have earned comes from fully-accredited colleges and universities, my company is covering 100% of the costs through its Tuition Reimbursement program.

Studying via the network is typically less expensive than equivalent on-campus courses—and no computer knowledge is needed to participate.

For details on course costs, participating schools, full degree programs, and an Electronic University Network 1986-1987 Catalog, call toll free:

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California residents call:

800-44LEARN

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GO EBB or circle 6 on the Reader Service Form.

Microsearch

How to Research Computer Products

If doing your homework before buying a computer hardware or software product has meant reading a stack of magazines and weathering the testimonials of well-meaning family and friends, take heart. Microsearch offers an easier way to find the microcomputer product that meets your needs.

Provided on CompuServe by Information Inc. of Washington, D.C., Microsearch is a database devoted exclusively to microcomputers and microcomputer products. It contains more than 28,000 abstracts of product reviews and manufacturers' product literature covering the spectrum of microcomputer products. The abstracts include product reviews from more than 200 microcomputer-related periodicals as well as product literature from more than 5,000 manufacturers.

The Microsearch database is grouped into three categories: Software Information, Hardware/Services/Accessories Information and a Directory of Manufacturers.

Software Information covers all types of software, including business, professional, games, educational, scientific and health-related programs. Hardware/Services/Accessories Information includes all types of microcomputers as well as related products and services. The Directory of Manufacturers provides company names, addresses, contact names and, when available, toll-free numbers.

You can search Microsearch's Software and Hardware categories by subject, micro or operating system, product name, manufacturer, publication date or any combination of these terms. Abstracts also may be searched by document type, enabling you to select magazine product reviews from knowledgeable industry sources or product literature directly from the manufacturer, or both.

Let's say, for example, that you have an IBM PC-AT and you are looking for a letter-quality printer to use with it. Here is how you can use Microsearch to find abstracts of compatible product reviews and descriptions:

Type GO MSH at any prompt to access Microsearch. From the Microsearch menu, choose option 3, "Hardware, Services and Accessories Information."

Next, a menu prompt will ask if you would like to search hardware by 1) Subject, 2) Micro or Operating System, 3) Product Name, 4) Manufacturer, 5) Publication, 6) Date or 7) Document Type. Since you can search only by one option at a time, you could pick "Subject" or "Micro or Operating System" to begin the search. Let's say you choose the latter.

At the "Enter Micro or Operating System" prompt, type IBM PC-AT. After searching its database, Microsearch will display first the number of abstracts selected and then the Next Action menu, asking if you want to 1) Display Selected Titles, 2) Narrow Selection Set, 3) Expand Selection Set or 4) Begin New Search. Choose option 2.

Once the Search Hardware menu appears, choose "Subject" and type in the keywords, "letter quality printer." Microsearch will review the set of abstracts it found from the previous search with the keywords IBM PC-AT and look for abstracts also having the keywords, "letter quality printer." When Microsearch has finished, it will again display the number of abstracts selected, followed by the Next Action menu.

If the number of abstracts selected is small enough, you will probably just want to display them.

If, however, the selection set is still too large, you may wish to narrow it further. A search that has met all essential criteria and still yields a large selection set affords an opportunity to get really picky. If you like reviews from certain magazines, narrow the selection set by choosing "Publication" from the Search Hardware menu. Perhaps a friend has recommended Epson printers; you then would narrow the set by choosing "Manufacturer."

Sometimes you may find that you have made your search too specific. If, in this example, you decide you also would like to know about compatible dot-matrix printers, choose "Expand Selection Set" from the Next Action menu. At the Search Hardware menu, select "Subject" and enter the keywords, "dot matrix printer." The number of abstracts selected will include those having both sets of keywords, "dot matrix" and "letter quality printer."

After you have displayed the selection set, don't forget to jot down the manufacturers for products about which you would like more information.

After returning to the Microsearch menu, choose option 4, "Directory of Manufacturers." You then can enter the manufacturers' names to find out where you should write for more information and, in some cases, a toll-free number you can call for further details.

The key to getting the most out of Microsearch in the shortest time is to make sure the keywords you enter are as specific as possible. The searches are only as effective as the keywords you enter.

To help you find specific keywords, Microsearch offers a subject thesaurus and indexes of microcomputers and publications covered in the database. These are available by choosing option 1, "Introduction/Search Tips" from the Microsearch menu.

Making a game plan before going online is a good idea. Try brainstorming different possibilities. What search options and keywords can you use to narrow your search? How about expanding your search? A well thought-out search strategy saves you both time and money.

How much time and money can Microsearch save you? Well, that depends. In the case of Riggs National Bank in Washington, D.C., quite a bit. The bank's data processing department was looking for a graphics package that could create flow charts. The bank's own information center was able to locate only one IBM PC-compatible package, which cost $8,000. When the department members turned to Microsearch, they were able to find 11 different packages that met their requirements. One was the $8,000 package and the other 10 each were less than $400. The package that was ultimately purchased cost $149.95.

Whether it is for home or business, Microsearch provides a fast, economical way of separating the best and the worst of what is available in the microcomputer world.

— *Matthew Burns*

Mall Makes Tax Time Less Taxing

Benjamin Franklin once wrote, "But in this world nothing can be said to be certain except death and taxes." It is true today. To help you understand the new tax laws and save a few cents in the process, The Electronic Mall has created a special tax-time database featuring many products and services offering online tax tips and information. You will discover that many Mall merchants offer products and services to help you plan for 1987 and save 1986 taxes.

At Great Lakes Business Forms, you can order computer-fed tax forms compatible with most microcomputer accounting and payroll software packages. Those featured include one for business, banking and finance and one for personal tax preparation. You can request a free tax form catalog. GO GL

Investment Software, a new merchant and specialist in IBM software, features HowardSoft Tax Preparer, a tax preparation program for both the individual and the professional. The program has two data entry modes and will automatically post information to all required lines on other forms. It also has unlimited itemizing and continuous record-keeping capabilities.

At Investment Software you will discover more than 50 investment-related packages for the IBM, including portfolio management, options, bonds, commodities and real estate. GO IS

Computer Express offers a wide selection of tax-time software for the Apple, Commodore, IBM and Macintosh. Featured packages include J.K. Laser's Income Tax from Simon & Schuster, Swiftax and Tax Wizard. GO CE

At Software Discounters of America you will find financial and tax packages for the Commodore, Atari, Atari 520ST, IBM, Apple, Macintosh and Amiga. GO SDA

You also can order tax-time books online. Visit Ballantine Books to order *The Arthur Young Tax Guide 1987*, the bestselling tax guide *The New York Times* called "a model of clarity." It has detailed, up-to-the-minute explanations of new and significant changes in tax laws and regulations. *The Arthur Young Tax Guide 1987* features a line-by-line "translation" of the official IRS tax guide. It also has more than 300 tips to cut taxes. It is a real bargain for $10.95. GO BAL

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At Waldenbooks you will find many investment and financial titles. Especially recommended are the No-Nonsense Guides. Each guide, selling for $3.95, covers a specific topic including buying and selling a house, common stocks, estate planning and wills, IRAs, money market funds and tax-exempt bonds. GO WB

McGraw-Hill, a leader in the business book field, also offers many investment books in an online catalog. *Financial Planning for the Utterly Confused* is highly recommended. This is *the* book for those who need to start planning a secure economic future. The book examines the advantages and disadvantages, the costs and the risks associated with various financial investments. GO MH

Many Mall merchants offer financial products, services and investment opportunities online. As a full-service brokerage firm, Dean Witter Reynolds offers many tax-related products that can help you save taxes while earning income. Municipal bonds, tax-free funds and tax-free zero coupon bonds are some of the many products available. Dean Witter has added two sections designed especially to help reap maximum benefits from the new tax laws: "Ways To Save on Income Taxes" and "Test Your IRA Know How." Dean Witter also offers — free and with no obligation — "The Dean Witter Tax Reform Guide." GO DWR

THE EQUITABLE

At The Equitable, one of the largest money managers in the United States, a wide range of tax-related products and services is at your fingertips. You can take a short online quiz to find how much an IRA can save in taxes. You also can ask the online agent about taxes, investments and retirement.

The online agent will respond personally to your questions via EasyPlex, suggesting financial products to meet your needs. Subscribers also have the opportunity to request that further product information be mailed to them. Now is the time to take advantage of this free, no obligation service. GO EL

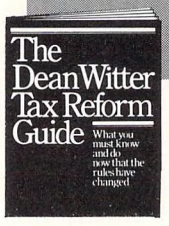
MaxUle& Company Inc.

At Max Ule Discount Brokerage, you can request an IRA application. Choose stocks, bonds, covered options, zero coupon bonds, mutual funds and more. Featured at Max Ule's Mall store is a full range of Fidelity Funds. The selected portfolio lets you choose from The Mercury Fund, The Equity Income Fund, The OTC Portfolio, The Magellan Fund, The Overseas Fund and more. GO MU

At Colonial National Bank, you will find FDIC-insured fixed and variable interest rate IRA plans. You can invest $250 to $2,000 ($4,000 if both spouses work). GO CN

If you are planning to start a business or currently own an interest in an unincorporated business, check the Business Incorporating Guide. Discover how incorporating can be a tax-saving and tax-sheltering device and can limit your liability. The pros and cons of incorporating are listed and you can apply for an incorporation application online. Choose from several different business forms including sole proprietorship, partnership, limited partnership and corporation. GO INC

An intelligent response to Tax Reform.



To find out ways to benefit from the new tax law, **go DWR** for a free copy of this Guide.

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DEAN WITTER
Consumer Markets

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APPAREL/ACCESSORIES

APC	Apparel Concepts for Men
CA	Casual Tee's
IO	Inside*Outside
RF	International Fur Wholesalers
LH	L'eggs/Hanes Outlet
MJ	Milkins Jewelers
BAG	Woodstock Leather Co.

AUTO

BU	Buick Magazine
CHV	Chevy Showroom
FMC	Ford Motor Co.

BOOKS

BAL	Ballantine Books
MH	The McGraw-Hill Book Co.
MER	Mercury House
WB	Waldenbooks

COMPUTING

CE	Computer Express
DSC	Discount Computers
GL	Great Lakes Business Forms
HTH	The Heath Co.
IBM	IBM Canada Ltd.
IR	Icon Review
IS	Investment Software
MM	Marymac Industries Inc.
MNU	Menu International
MO	Misco Computer Supplies
SR	Sears, Roebuck & Co.
SDA	Software Discounters of America
WOC	World of Computers

FINANCIAL

BNB	Beneficial National Bank USA
INC	Business Incorporating Guide
CN	Colonial National Bank USA
DWR	Dean Witter Reynolds
EL	Equitable Life
HRB	H&R Block
MU	Max Ule Discount Brokerage
SLG	Sun Life Group

GIFTS/GOURMET

AK	Alaska Teleshopper
COF	Coffee Emporium
EX	Executive Engraver
FTH	Fifth Avenue Shopper
FFS	Florida Fruit Shippers
HI	Hawaiian Isle
HH	Hobbit Hole/Wyandotte Wines
LM	Lincoln Manor Baskets
SIM	Simon David
TF	Tooth Fairyland
WK	Walter Knoll Florist

HOME/LEISURE

CC	Cosmic Concepts
HC	Hobby Center Toys
MAO	Music Alley Online
QT	QualiToy
RR	Rin Robyn Pool & Patio
TSR	TSR Hobby Shop
VCS	Vacuum Advance

MERCHANDISE/ELECTRONICS

AA	American Airlines Catalog
ATT	AT&T
CFD	Crutchfield
NCS	Nationwide Catalog Shopper
OM	Office Machines & Supplies
ORD	CompuServe Store
SR	Sears, Roebuck & Co.
SUN	Sunland Camera
XDM	Xerox Direct Marketing

ONLINE SERVICES

EF	EF Hutton
GLO	Globalink
NN	NewsNet
OA	Official Airline Guides
VL	Videolog

PERIODICALS

CW	CW Communications
DJ	Dow Jones & Co.
ME	EBSCO Magazine Entree
ECO	ECOPRESS
US	USA TODAY

PREMIUM MERCHANTS

AXM	American Express Merchandise
BL	Bloomingdale's By Mail
NM	Neiman-Marcus
TIF	Tiffany & Co.

RECORDS/MOVIES

CF	CBS/Fox Video
EMC	Express Music CDs
MV	Magic Castle Video
RC	RCA Direct Marketing

SPORTS/HEALTH

HF	Carolina Health & Fitness
MN	Merle Norman Cosmetics
VM	VitaMenagerie Discount Vitamins

TRAVEL

AF	Air France
AT	Ameropa Travel

Control Air Space With Simulator Game

If you've ever uttered the yuppie cry "Give me some space," a new CompuServe multiplayer game can give it to you. Simulated air space, in fact.

Air Traffic Controller is an interactive game in which you are responsible for the planes sent into a given sector of air space. Your job is to either land them safely or send them to a neighboring sector. Up to nine CompuServe subscribers can play a game of *Air Traffic Controller* at one time. If other players are not available, the user may play against the CompuServe host computer.

Air Traffic Controller was designed by Steve Estvanik of Seattle, Wash., the writer of Avalon Hill computer games for the IBM PC including *RAM!*, *Incunabula*, *By Fire & Sword*, *Circus Maximus* and *Gulf Strike*.

"The *Air Traffic Controller* game was a combination of ideas from magazine articles and a search for a competitive game that didn't require people to shoot at one another," Estvanik said. "The goal of the game is to prevent collisions while making the best possible use of fuel. Players are free to help their neighbors in adjacent sectors or not help them. Usually, cooperating with neighbors will make your own shift more profitable."

Air Traffic Controller is one of many interactive CompuServe games, and it is not likely to be the last, according to Cynthia Penson, CompuServe's marketing specialist in charge of games.

"These interactive games are extremely popular and growing more so every day," she said. "Playing computer games with people from all across the United States is fascinating and rewarding. In addition to the sport of the game, it is a great way to meet people."

To read the instructions for *Air Traffic Controller* or to enter the *Air Traffic Controller* gaming area, type GO ATCONTROL at any prompt on the CompuServe Information Service. In addition, within the *Air Traffic Controller* game you can type H to display a list of available commands.

The Multiplayer Games Forum (GO MPGAMES) is the place to get to know more about *Air Traffic Controller* and to find people who play it. Type GO MPGAMES at any prompt.

In addition, within the *Air Traffic Controller* game you can type H to display a list of available commands.

— Dave Peyton

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With IQuest — CompuServe's research annex featuring over 700 publications, databases and indices.

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To access PROMT type GO IQUEST at any ! prompt.

* Search/retrieval charges for PROMT are waived February 9-22. Base connect charges are in effect.

Professionals, consumers discuss health hazard news: *Baldeck leads forum*

Safetynet Catches Latest News on Hazards

Through Safetynet, CompuServe subscribers now can learn about health hazards, including radon gas, a tasteless, odorless, colorless and dangerous source of radiation. Radon gas has been detected in 8 million homes in at least 30 states and has claimed 20,000 lives per year, according to Environmental Protection Agency statistics.

Experts and laypeople come together in Safetynet for an online conference each month to address hot topics. Each month features a new subtopic. Users can exchange personal experiences and relevant articles and bibliographies. In addition to radon gas, past discussions have included electrical safety and residential fire safety. A session on artificial intelligence is being planned.

"Unlike a newspaper or magazine article that provides only general information, our forum can answer specific questions," says forum administrator Charles Baldeck, an industrial hygiene consultant. "Because members come from all fields of safety and industrial hygiene, someone nearly always has the information, no matter how obscure the inquiry."

Specialized questions also have a place here. Forum participants include physicians, fire and police professionals, health physicists and concerned consumers.

Safety professionals benefit from the forum, too. In one dramatic instance, Kevin Page, an Illinois firefighter, used information from a Safetynet file and decided not to open a smoldering grain bin. Aside from averting an immense explosion, his firefighting team prevented the loss of several lives and millions of dollars in equipment.

Baldeck is always on the lookout for new discussion coordinators. "The discussions require research and subject matter knowledge, but the results are worth it," he notes. One month of free forum usage is an added incentive for leaders.

If you missed a topic of interest, the data libraries offer records of past discussions; for example, Data Library 2 contains the discussion on radon (with additional information available in Data Library 5).

But the data libraries contain much more than interactive records. Interested subscribers can find lifesaving files about asbestos, Freon hazards, microwave dangers and carcinogenic chemicals. Professionals can locate invaluable information on topics ranging from chemical emergency preparedness plans to assistance in preventing cave-ins. "Safetynet offers something for everyone," sums up Baldeck. Type GO SAFETY and tap into the brainpower dedicated to making our lives less hazardous.

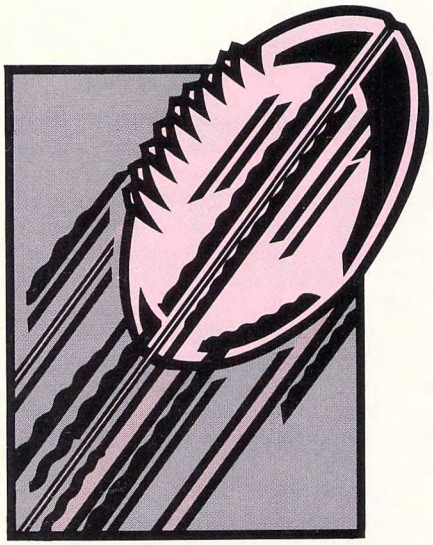
— *Sandra Gurvis*

NEW PRODUCTS

New Sections in Q&A Database

If you have questions about accessing and using the CompuServe Information Service, you can find answers in the online Question & Answer Database provided by CompuServe's Customer Service staff.

Questions and answers for six new topic areas have been added: CompuServe's Online Ordering Area, the Executive Option, the Personal File Area, Personal Menus, Market Quotes and the CB Simulator. GO QUESTIONS



Digital Football League Debuts

The Digital Football League is now available on the CompuServe Information Service. You may coach your own DFL football team, and call offensive and defensive plays in the Advanced Digital Football game.

It's a simulation of a real football game, with timed quarters of play, a time clock, time-outs and play formations. You can use established plays or create your own.

Each team has a Golem, a computerized "assistant" designed to suggest plays that you can use or disregard. You decide whether to go for it when it is fourth down and inches to go. GO DFBL

ETC Newsletter Adds Features

The Educational Travel Connection's online travel newsletter has added new features including new listings of airfares to common destinations and airline specials in the condensed Travel News and Airline News areas.

Another addition, the Digest area, includes brief versions of prestigious travel newsletters. For example, The Young Traveler's Newsletter provides parking hints, travel tips and information on inexpensive transportation. Stories from the Travelore Report and Family Travel Times, a monthly publication of Travel With Your Children, and Travelore Tips also are included. Transitions Abroad will include articles about working, living and studying abroad.

The ETC travel newsletter now provides this information at a lower cost. ETC is offering a free trial issue to CompuServe subscribers. GO ETC-70

OAG Adds Ticketing Options

The Official Airline Guide Electronic Edition has added more ticketing alternatives and increased its range of services.

When CompuServe subscribers specify Thomas Cook Travel as the ticketing agent, several ticketing options are available. For example, you can have Thomas Cook Travel or the airline send you the ticket. Another option is to arrange to pick up the ticket at your local Thomas Cook agency or airline ticket office. More detailed explanations of the ticketing options are in the OAG Electronic Edition.

If you choose Thomas Cook Travel for ticketing, you can make online travel arrangements, including hotel accommodations and car rentals. After looking up hotel information in the OAG Electronic Edition, you can make hotel reservations online when you purchase an airline ticket. GO OAG

Rare Disease Data Added

The Rare Disease Database has had several recent changes to offer new information and make articles easier to locate.

The AIDS Update has been moved to the main menu (GO RDB and select item 5). It includes new information on the orphan drug AZT (see the Therapy section of the AIDS Update).

The name of the Rare Disease Reference Materials menu choice has been changed to Prevalent Health Conditions/Concerns. The menus now are arranged according to the type of condition and include information on such topics as orphan drugs, diabetes, alcohol abuse, immunization and neurological disorders. GO RDB

Daily Disney Trivia Continues

Daily Disney Trivia is now available in the Florida Forum. Jay McGuire, Disney Trivia section leader, hosts the game with a new list of questions each day on the message board. Each Tuesday at 9 p.m. EST, the forum has a special Disney Trivia Contest complete with prizes.

The Florida Forum also offers information on living in Florida. You can talk online with the Florida Tourism Office to get information for planning a Florida vacation. GO FLORIDA

American Express Adds Services

Information on Buyer's Assurance and Global Assist, two new services for American Express Card members, now is available on CompuServe.

With Buyer's Assurance, American Express will double the repair period of the manufacturer's warranty, up to one additional year for warranties of up to five years, on virtually any item purchased with the American Express Card.

Global Assist is a medical and legal referral service available virtually 24 hours a day. This program provides additional services to travelers, such as advances of up to $5,000 for bail or hospital admission, visa and innoculation information and the delivery of urgent messages if there is a language problem. GO AXP

West Coast Travel Adds Section

West Coast Travel has added a section, "Cruise Travel," featuring cruise adventure articles and information.

The section includes such stories as "Cruising the Caribbean" and "Cruising Glacier Bay Alaska and Alaska Towns" and instructions for obtaining information about the various cruise lines. West Coast Travel will be adding more cruise articles in the future. GO WESTCOAST

Caseworker Finds Help in Safetynet

I'm a caseworker for Oregon's Children's Services Division in rural Columbia County. My job includes getting psychological help for children who are considered dangerous, preferably before they injure anyone.

Half a dozen kids on my caseload had set fires, and I was having trouble finding resources to deal with them. Residential treatment programs avoided them for fear of losing their insurance, and the state mental hospitals would take only the worst cases. That left one choice, dealing with them in the community, but how?

I turned to CompuServe for an answer. I left a message pleading for help on the Safetynet Forum, an online meeting place for safety professionals and consumers.

The response was tremendous. I got messages from firefighters across the nation offering assistance. They taught me to identify different types of firesetting behavior, how to predict danger and how to do a better job of screening kids for treatment. They also told me about the Firehawk program that successfully deals with children who set fires by pairing them with Firemen Big Brothers.

CompuServe's Safetynet Forum has given me a better understanding of firesetting children and practical ideas on dealing with them.

Gary Olson
Portland, Ore.

Gift of Time

Online Today offers subscribers the chance to write a 200-word essay on how they use CompuServe's Information Service.

Your essay should be typed double-spaced. Send it to *Online Today*, CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or by an EasyPlex message to 70003,3246. Please include your full name, address and User ID number.

If we use your column, you will receive 10 hours of standard service connect time (a $60 value) and a byline.

Ask Customer Service

Q: I want to interact with other CompuServe subscribers. What services does CompuServe offer that will allow me to meet, write letters to, play games with or talk with other subscribers?

A: CompuServe offers many ways to communicate online:

- EasyPlex allows you to send and receive messages electronically with other CompuServe, InfoPlex and MCI Mail subscribers. (GO EASYPLEX)
- National Bulletin Board is CompuServe's online classified section for buying or selling goods and posting bulletins of interest to other subscribers. (GO BULLETIN)
- Forums offer a place for subscribers with similar interests to read or leave messages, or to hold conferences in real time. (GO FORUMS)
- CB Simulator lets you meet and talk in real-time to people throughout the country. (GO CB)
- Games including *MegaWars*, *Island of Kesmai*, *Air Traffic Controller* and *You Guessed It!* allow you to pit your skills against other subscribers. (GO GAMES)

Q: I have enjoyed many live forum conferences and have had the opportunity to participate in conversations with celebrities and guest speakers. How can I stay informed of future online conferences?

A: Periodically accessing the forums that cover topics of interest to you is the easiest way. Each forum reserves a section for announcements of forum events including upcoming conferences. Forum administrators generally announce conferences in advance. Also, general interest conferences are announced frequently in the "Forum Conference Schedules" section of *Online Today Electronic Edition* (GO OLT-120).

Q: How can I find names and User ID numbers of people who have similar interests?

A: CompuServe's Subscriber Directory (GO DIRECTORY) lists subscribers by specific interest, geographic location or computer brand. Because entries in the directory are voluntary, all subscribers are not listed. Each forum also has a membership directory for forum members to list similar information.

Q: How can my business associates and I hold private conferences online?

A: You can use the "scramble" feature in a forum's conference area or scramble your entries on an open channel in the CB Simulator. To be privy to the private conference, you and your associates must enter /SCR CODE ("CODE" represents a secret code you and your associates designate). Unscrambled entries are accessed only with the correct command.

CompuServe also offers customized commercial communications applications including private online conferencing for large businesses.

Changing Your Password

The CompuServe Information Service urges its customers to change their password(s) at least once a month.

The password should be a minimum of eight characters composed of two unrelated words separated by a symbol, for example: HOUSE*MAGNET.

To find out how to change your password, type GO PASSWORD.

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GO EBB or circle 10 on the Reader Service Form.

SUBJECT INDEX

*** Current as of February 1, 1987.**

The CompuServe Information Service Subject Index provides a list of the communication and information services available online, and it is updated continually. Refer to the most recent index of services online by entering **GO INDEX** at any prompt.

Use the most direct route to reach a service by entering **GO** followed by the Quick Reference Word provided in the index. Enter this command at any online prompt.

Find the services available under a topic of interest by entering **FIND** and the topic at any online prompt. For example, if you would like to see what services are offered concerning travel, enter FIND TRAVEL. You will receive a list of the services related to travel, along with the Quick Reference Words to proceed to each area.

COMPUTERS AND TECHNOLOGY	GO COMPUTERS
Personal Computing Forums — Hardware	
Amiga Forum	GO AMIGAFORUM
Apple Users Group	GO MAUG
Apple II and III Forum	GO APPTWO
Apple Developers Forum	GO APPDEV
Apple User Groups Forum	GO APPUG
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Computer Club Forum	GO CLUB
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Hewlett-Packard Series 100 Forum	GO HP
IBM Users Network	GO IBMNET
IBM Communications Forum	GO IBMCOM
IBM Hardware Forum	GO IBMHW
IBM Junior Forum	GO IBMJR
IBM New Users Forum	GO IBMNEW
IBM Software Forum	GO IBMSW
Kaypro Forum	GO KAYPRO
OMNI OnLine	GO OMNI
OS9 Operating System Forum	GO OS9
Tandy Users Network	GO TANDYNET
Color Computer Forum	GO COCO
Fort Worth Computer Chronicles	GO FWCC
LDOS/TRSDOS 6 Forum	GO LDOS
Model 100/Portables Forum	GO M100SIG
Tandy Corporation Newsletter	GO TRS
Tandy Professional Forum	GO TRS80PRO
Texas Instruments Forum	GO TIFORUM
Personal Computing Forums — Software/Languages	
AI EXPERT Magazine	GO AIE
Ashton-Tate Forum	GO ASHTON
Autodesk Forum	GO ADESK
Borland International Forum	GO BORLAND
CADRE Forum	GO CADRE
Computer Art	GO ARTSIG
Computer Club Forum	GO CLUB
Computer Consultants Forum	GO CONSULT
Computer Language Magazine	GO CLM
Computer Training Forum	GO DPTRAIN
CP/M User Group	GO CPMSIG
Digital Research Forum	GO DRFORUM
Forth Forum	GO FORTH
LOGO Forum	GO LOGOFORUM
LOTUS Forum	GO LOTUS
1-2-3 Software Forum	GO LOTUS123
Jazz Software Forum	GO LOTUSJAZZ
Symphony Software Forum	GO SYMPHONY
LDOS/TRSDOS Forum	GO LDOS
Living Videotext Forum	GO LVTFORUM
MicroPro Users Forum	GO MICROPRO
Microsoft Forum	GO MSOFT
Pascal Forum	GO MUSUS
Programmers Forum	GO PROGSIG
Software Publishing Forum	GO SPC
Whole Earth Software Forum	GO WHOLEEARTH
Electronic Publications and Other Interests	
AI EXPERT Magazine	GO AIE
ANTIC ONLINE	GO ANTIC
Apples Online	GO AOL
COMPUTER LANGUAGE Magazine	GO CLM
Digital Research Inc.	GO DRI
Dr. Dobb's Journal	GO DDJ
DR. JOB	GO DRJ
FAMILY COMPUTING Magazine Electronic Edition	GO FAM
THE ELECTRONIC GAMER™	GO EGAMER
Fort Worth Computer Chronicles	GO FWCC
IQuest — The Online Reference Resource	GO IQUEST
Microsearch	GO MSH
OMNI OnLine	GO OMNI
Online Today	GO OLT
Software Publishing Online	GO SPC
Tandy Corporation Newsletter	GO TRS
Texas Instruments News	GO TINEWS
The World of LOTUS	GO LOTUS
Computing Tutorials	GO PCS-121
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VIDTEX™ Communication Software	GO VIDTEX

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CB Society	GO CUP
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HamNet Ham Radio Network	GO HAMNET
Picture Support Forum	GO PICS
Telecommunications Forum	GO TELECOM

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AP Sports Wire	GO SPORTS
AP Videotex Wire	GO APV
The Business Wire	GO TBW
Computer Sports World	GO CSW
Executive News Service®	GO ENS
Hollywood Hotline	GO HOLLYWOOD
IQuest — The Online Reference Resource	GO IQUEST
ONLINE TODAY Electronic Edition	GO ONLINE
Sports News	GO SPORTS
ST. LOUIS POST-DISPATCH	GO SPD
Weather Reports, Forecasts, Maps	GO WEATHER
News and Sports Forums	
Auto Racing Forum	GO RACING
Journalism Forum	GO JFORUM
National Issues and People Forum	GO ISSUES
OMNI OnLine	GO OMNI
Online CompuServe Connection	GO OCC
Outdoors Forum	GO OUTDOORS
Sailing Forum	GO SAILING
Sports Forum	GO HOM-110

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ABC Worldwide Hotel Guide	GO ABC
Adventures in Travel	GO AIT
American Express Travel Services	GO AXP
Discover Orlando	GO ORLANDO
Educational Travel Connection	GO EDTRAVEL
National Tourism Citilog	GO CITIES
Official Airline Guide EE	GO OAG
Pan American Travel Guide	GO PANAM
Rocky Mountain Connections	GO ROCKIES
State Department Travel Briefings	GO STATE
Sun 'N Sand Vacations	GO SNS
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Aviation Forum ..... GO AVSIG
Aviation Safety Institute ..... GO ASI
Flight Planning and Weather Briefings ..... GO EMI
Service Difficulty Reports ..... GO ASI
Weather Maps ..... GO MAPS
Weather Reports and Forecasts ..... GO AWX

SHOPPING SERVICES **GO SHOP**
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CompuServe's Online Product Ordering ..... GO ORDER
New Car Showroom ..... GO NEWCAR
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Casual Tee's ..... GO CA
Inside*Outside ..... GO IO
International Fur Wholesalers ..... GO RF
L'eggs/Hanes Outlet ..... GO LH
Milkins Jewelers ..... GO MJ
Woodstock Leather ..... GO BAG

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IBM Canada Ltd. ..... GO IBM
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Equitable Life ..... GO EL
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Max Ule Discount Brokerage ..... GO MU
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U.S. Dollar Outlooks from Money Market Services ... GO MMS

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Max Ule & Co. (Brokerage Services through Tickerscreen) ... GO TKR
NCNB National Bank, Charlotte, N.C. ... GO NCB
PSFS, Philadelphia ... GO PSFS
Quick & Reilly (Brokerage Services through Quick Way) ... GO QWK
Rappaport Diamond Brokers ... GO RDC
Shawmut Bank, Boston ... GO SHW
Southeast Bank, Miami, Florida ... GO SEB
Unified Management (Mutual Fund Services from Liquid Green) ... GO UMC
United American Bank, Memphis ... GO UAB
"Business Banking Direct" from PSFS ... GO BBD

Financial and Investment Forums

Ashton-Tate Support Library ... GO ASHTON
Ask Mr. Fed Forum ... GO ASKFED
Financial and Investment Forums ... GO FINFORUMS
Investors ... GO INVFORUM
World of LOTUS (LOTUS 1-2-3, Symphony, Jazz) ... GO LOTUS

BUSINESS MANAGEMENT AND REFERENCE — **GO BUSINESS**

American Association of Medical Systems and Informatics Communications ... GO AAMSI
American College of Obstetricians and Gynecologists ... GO ACOG
American Express® ADVANCE ... GO AXP
Aviation and Flight Planning ... GO AVIATION
AP Videotex, Business ... GO APV
The Business Wire ... GO TBW
Calculate Net Worth ... GO FINANCE
Checkbook Balancer ... GO CHECKBOOK
Communications Industry ... GO MEDIA
Computer Consultants Forum ... GO CONSULT
Executive News Service℗ ... GO ENS
DR. JOB ... GO DRJ
EdVENT II ... GO EDV
Fedwatch Newsletter ... GO MMS
Independent Insurance Agents Association ... GO INSURANCE
Industry Directories℗ ... GO DIR
Information USA ... GO IUS
Internal Revenue Services ... GO IRS
Int'l Entrepreneurs' Network ... GO USEN
IQuest — The Online Reference Resource ... GO IQUEST
Loan Amortization ... GO FINANCE
Microsearch ... GO MSH
PaperChase (MEDLINE) ... GO PCH
Rare Disease Database ... GO RDB
Social Security Administration ... GO SSA
Stevens Business Reports ... GO SBR
SUPERSITE Demographic Information℗ ... GO SUPERSITE
U.S. Government Publications ... GO GPO
World-Wide Investment System ... GO REAL ESTATE

Reference and Training Forums

Association for the Dev. of Computer-based Instructional Sys. ... GO ADCIS
Computer Training Forum ... GO DPTRAIN
Disabilities Forum ... GO DISABILITIES
Educational Products Information Exchange ... GO EPIEFORUM
Working From Home ... GO WORK

Industry and Professional Forums

American Association of Medical Systems and Informatics ... GO MEDSIG
Aircraft Owners and Pilots Association ... GO AOPA
Aviation Forum ... GO AVSIG
Broadcast Professional Forum ... GO BPFORUM
Communications Industry ... GO MEDIA
Computer Training Forum ... GO DPTRAIN
Consumer Electronics Forum ... GO CEFORUM
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Safetynet Forum ... GO SAFETY
Telecommunications ... GO TELECOM
Work From Home ... GO WORK
Writers and Editors ... GO WESIG

HOME, HEALTH & FAMILY — **GO HOME**

Calculate Net Worth ... GO FINANCE
Checkbook Balancer ... GO CHECKBOOK
HealthNet ... GO HNT
Home Management ... GO HOME
Human Sexuality ... GO HSX
Independent Insurance Agents Association ... GO INSURANCE
Information USA ... GO IUS
Internal Revenue Services ... GO IRS
IQuest — The Online Reference Resource ... GO IQUEST
Loan Amortization ... GO FINANCE
Naked Eye Astronomy ... GO NIA
The National Satirist ... GO KCS
New Car Showroom ... GO NEWCAR
OMNI Online ... GO OMNI
Personality Profile ... GO TMC
Rare Disease Database ... GO RDB
Social Security Administration ... GO SSA

General Interest Forums

Aquarium & Tropical Fish ... GO FISHNET
Astronomy Forum ... GO ASTROFORUM
Comic Book Forum ... GO COMIC
Consumer Electronics ... GO CEFORUM
Disabilities Forum ... GO DISABILITIES
Family Computing Forum ... GO FAM
Food/Wine Forums ... GO FOOD
The Gamers' Forum ... GO GAMERS
Good Earth Forum ... GO GOODEARTH
Ham Radio Forum ... GO HAM
Human Sexuality ... GO HSX

OBJECT INDEX

Literary Forum ..... GO LITFORUM
Music Forum ..... GO MUSICFORUM
Model Aviation Forum ..... GO MODELNET
National Issues and People Forum ..... GO ISSUES
Online CompuServe Connection ..... GO OCC
Outdoors Forum ..... GO OUTDOORS
Religion Forum ..... GO RELIGION
Science Fiction Forum ..... GO SCI-FI
Space Forum ..... GO SPACEFORUM
WITSIG ..... GO WITSIG
Work From Home ..... GO WORK

EDUCATION AND REFERENCE — **GO EDUCATION**

Education
The College Board ..... GO TCB
College Press Service ..... GO CPS
Computer Training Forum ..... GO DPTRAIN
Educational Travel Connection ..... GO EDTRAVEL
Educational Products Information Exchange (EPIE) ..... GO EPE
EdVENT II ..... GO EDV
Handicapped Users' Database ..... GO HUD
Peterson's College Guides ..... GO PCG
The Multiple Choice ..... GO TMC
Touch-Type Tutor ..... GO TMC
The Whiz Quiz ..... GO WHIZ
Science Trivia ..... GO SCITRIVIA
Rehabilitation Database ..... GO REHAB

Reference
Academic American Encyclopedia ..... GO ENCYCLOPEDIA
U.S. Government Publications ..... GO GPO
Information USA ..... GO IUS
IQuest — The Online Reference Resource ..... GO IQUEST
Microsearch ..... GO MSH
SUPERSITE Demographic Information Ⓔ ..... GO SUPERSITE

Education Forums
Assoc. for Education in Journalism and Mass Communications Forum ..... GO AEJMC
Assoc. for the Development of Computer-based Instructional Systems Forum ..... GO ADCIS
Computer Training Forum ..... GO DPTRAIN
Disabilities Forum ..... GO DISABILITIES
Educational Products Information Exchange Forum ..... GO EPIEFORUM
Educational Research Forum ..... GO EDRESEARCH
Educators Forum ..... GO EDFORUM
Foreign Language Education Forum ..... GO FLEFO
LOGO Forum ..... GO LOGOFORUM
Science and Math Education Forum ..... GO SCIENCE
Students' Forum ..... GO STUFO
Space Forum ..... GO SPACEFORUM

ENTERTAINMENT AND GAMES — **GO GAMES**

Entertainment
Hollywood Hotline ..... GO HHL
Movie Reviewettes ..... GO MOVIES
Music Forum ..... GO MUSICFORUM
Rocknet ..... GO ROCK
Soap Opera Summaries ..... GO SOS

ENTERTAINMENT NEWS/INFORMATION — **GO EGNEWS**

The Gaming Connection ..... GO GAMCON
Hollywood Hotline ..... GO HHL
Movie Reviewettes ..... GO MOVIES
National Satirist ..... GO KCS
RockNet ..... GO ROCK
Soap Opera Summaries ..... GO SOS

ENTERTAINMENT/GAMES FORUMS — **GO EGFORUMS**

CBIG (CB Interest Group) ..... GO CBIG
Comic Book Forum ..... GO COMIC
Consumer Electronics Forum ..... GO CEFORUM
The Gamers' Forum ..... GO GAMERS
The Gaming Connection ..... GO GAMECON
The Multi-Player Games Forum ..... GO MPGAMES
Music Forum ..... GO MUSICFORUM
Picture Support Forum ..... GO PICS
RockNet ..... GO ROCKNET
Sci-Fi Fantasy Forum ..... GO SCI-FI
WitSIG ..... GO WITSIG

GAMES FORUMS-INFORMATION — **GO GAMECON**

The Gaming Connection ..... GO GAMECON
The Gamers' Forum ..... GO GAMERS
Introduction to CompuServe Games ..... GO INTRO

ADVENTURE GAMES — **GO ADVENT**

CastleQuest ..... GO CQUEST
Flying Buffalo ..... GO BUFFALO
House of Banshi ..... GO BANSHI
Original Adventure ..... GO ORADVENT
New Adventure ..... GO NEWADVENT
Scott Adams Adventure Series ..... GO ADAMS

BOARD/PARLOR GAMES — **GO BPGAMES**

Astrological Charting ..... GO ASTROLOGY
Baffle Word Game ..... GO BAFFLE
Biorhythm Charting ..... GO BIORHYTHM
The Casino ..... GO CASINO
Hangman ..... GO HANGMAN

FANTASY ROLE-PLAYING GAMES — **GO FRPGAMES**

BlackDragon ..... GO BLACKDRAGON
Castle Telengard ..... GO CASTLE
Flying Buffalo ..... GO BUFFALO
Island of Kesmai ..... GO ISLAND

MULTI-PLAYER GAMES — **GO MULTIGAMES**

Air Traffic Controller ..... GO ATCONTROL
Baffle Word Game ..... GO BAFFLE
The Casino ..... GO CASINO
Flying Buffalo ..... GO BUFFALO
Island of Kesmai ..... GO ISLAND
MegaWars I ..... GO MEGA1
MegaWars III ..... GO MEGA3
SeaWAR ..... GO SEAWAR
SpaceWAR ..... GO SPACEWAR
Terrestrial ..... GO TERRESTRIAL
You Guessed It! ..... GO YGI!
The Multi-Player Games Forum ..... GO MPGAMES

SIMULATION/SPORTS GAMES — **GO SSGAMES**

Advanced Digit Football ..... GO ADFL
Air Traffic Controller ..... GO ATCONTROL
Football ..... GO FOOTBALL
Golf ..... GO GOLF

TRIVIA/THOUGHT GAMES — **GO TTGAMES**

Baffle Word Game ..... GO BAFFLE
The Multiple Choice ..... GO TMC
Science Trivia Quiz ..... GO SCITRIVIA
SHOWBIZQUIZ ..... GO SHOWBIZ
The Traveler's Challenge ..... GO ETC-81
The Whiz Quiz ..... GO WHIZ
Word Scramble ..... GO SCRAMBLE
You Guessed It! ..... GO YGI!

WAR GAMES — **GO WARGAMES**

Command Decision ..... GO COMDEC
MegaWars I ..... GO MEGA1
MegaWars III ..... GO MEGA3
SeaWAR ..... GO SEAWAR
Space WAR ..... GO SPACEWAR

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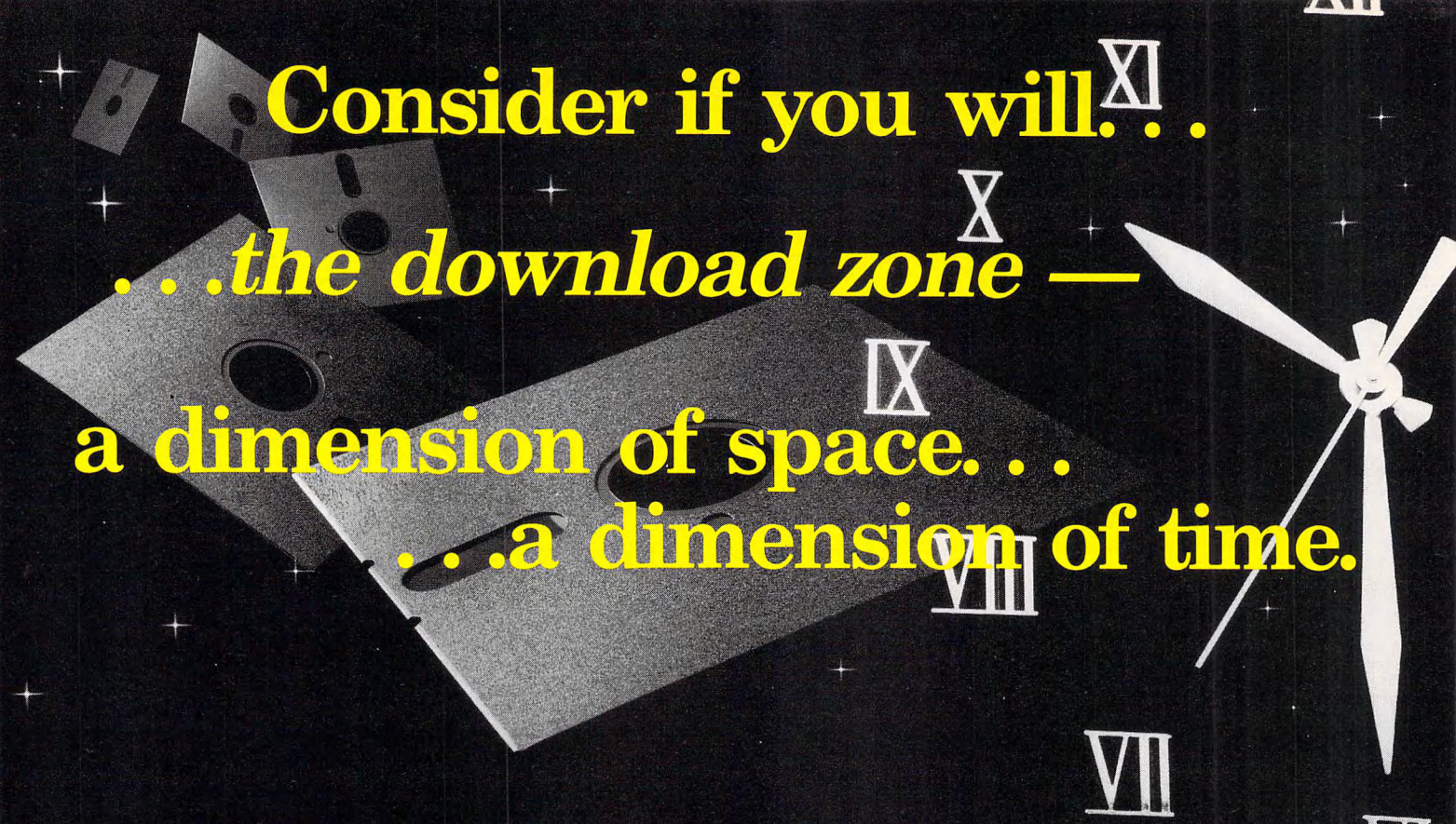

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Talking Programs, Utilities Added

The data libraries in CompuServe's forums are filled with thousands of programs and textfiles. The following are a few of the files uploaded to the data libraries in recent months. For a more up-to-date list of uploads, check the "Uploads" columns in *Online Today Electronic Edition* by typing GO OLT-3700 at any CompuServe Information Service prompt. New columns are added twice monthly.

AAMSI MEDICAL FORUM
(GO MEDSIG)

Computers and Health Care — A summation of an ongoing discussion in the forum about how computers can be used to improve the quality of health care in America. Files QUAL1.FOR through QUAL6.FOR in Data Library 2.

AMIGA FORUM
(GO AMIGAFORUM)

Talking Alarm Clock — Amiga uses script-type files to wake everyone individually. File ALARM.ARC in Data Library 6.

Directory Utility — DirUtil, a directory utility for the Amiga with options including MakeDir, Delete Dir, Show ILBM, Rename, Delete Files, Type and more. File DU1.EXE in Data Library 6.

ATARI 16-BIT FORUM
(GO ATARI16)

Original Adventure — *Colossal Cave*, the original computer adventure game developed at the Massachusetts Institute of Technology. File ORGADV.ARC in Data Library 1.

Archive Utility — From the world of IBM CP/M, this utility compresses and stores multiple files into a single file. Compatible with IBM ARC files. File ARC.TTP in Data Library 3.

File Searcher — WhereIs, a program that searches all subdirectories and displays any filename that matches the given filemask. File WHERE.XMO in Data Library 3.

Word Processor — STWRITER, a full-featured word processor for the Atari ST. File STW150.ARC in Data Library 5.

A Basic Burp — A singular sound described as "Just your basic loud burp." File BURP.SND in Data Library 6.

ATARI 8-BIT FORUM
(GO ATARI8)

ASCII Conversion — A program to convert ATASCII to ASCII, convert ASCII to ATASCII and split larger files into smaller ones. File CONVRT.XMO in Data Library 3.

Database Program — Compact database program compatible with many DOSes, comes with colorful, helpful menus. File ADBASE.XMO in Data Library 3.

COMMODORE ART/GAMES FORUM
(GO CBMART)

CAD for the Commodore 64 — A set of associated Computer Aided Design and graphic tool files for the Commodore 64 based on a CAD program in Data Library 1 called CADV2.IMG. To see the set of CAD files, search the file descriptions in both Data Library 1 and Data Library 6. Type S/KEY:* CAD* at both the Data Library 1 and Data Library 6 prompts.

Adventure Builder — A program series that allows you to build, revise and play your own computer text adventures. File GABV2.BIN in Data Library 9.

INVESTORS' FORUM
(GO INVEST)

Suspend Call-Waiting — A textfile that describes a way to suspend call-waiting on your telephone, preventing it from throwing you offline if you are using your modem. File CWAIT.HLP in Data Library 0.

Government BBSes — A list of US Department of Commerce bulletin board numbers you can access via modem. File GOVT.BBS in Data Library 0.

Financial routines — BASIC programs for MS-DOS and Apple IIe machines containing 20 financial routines, including loan interest rates, depreciation, bond routines and more. Files FINANC.BAS and FINANC.APL in Data Library 0.

IBM COMMUNICATIONS FORUM
(GO IBMCOM)

Data Library Sorter — Program takes an entire catalog description list from a CompuServe data library; deletes duplicate entries; prompts for deletion of updated entries; sorts entries by name, date or User ID number; and optionally adds another updated list at a later date. File DELSOR.ARC in Data Library 2.

IBM NEW USERS FORUM
(GO IBMNEW)

Adventure Game — *A Dungeons and Dragons*-type role-playing game made popular on Unix systems. File HAK351.ARC in Data Library 3.

MAUG APPLE II/III FORUM
(GO APPLE)

Talking Apple — Voice Master, files to make the Apple use human voices. To see the series of files needed for Voice Master, type BRO TALK.* at the main Data Library 3 prompt.

Statistics Program — Calculates for the IIe or IIc, 12 different statistical tests, including mean, standard deviation, standard error and true/false tests. File ZSTAT1.BAS in Data Library 1.

MAUG MAC USERS FORUM
(GO MACUS)

Max Headroom — The famous animated figure especially for the Macintosh. File MAC in Data Library 1.

Arcade Game — *Worm!*, a single-player arcade game for the Macintosh. File WORM.BIN in Data Library 4.

Calendar Program — Smallview, a compact, dynamic calendar program for the Macintosh with storage and retrieval capabilities, allows you to write, display and print notes and calendars through the year 2039. File SMALLV.2 in Data Library 1.

File Finder — Version 1.2 of HFS Find for the Macintosh, a file finder DA that allows you to search for files by name, type, creator and modification date.

MICROSOFT FORUM
(GO MSOFT)

DOS Help — DOS Assistant, a memory resident program that adds 80 help windows to any personal computer using MS-DOS or PC-DOS. Detailed help is available for any DOS, Debug or Edlin command and help may be left on the display while the command is entered. File ASSIST.ARC in Data Library 0.

MULTIPLAYER GAMES FORUM
(GO MPGAMES)

***Kesmai* Tutorials** — The first two *Island of Kesmai* beginners' classes, consisting of a conference session in which an expert gamer tutors *Kesmai* novices in island survival and presents a live foray of the game. Files CLASS1.IOK and CLASS2.IOK in Data Library 7.

TANDY PROFESSIONAL FORUM
(GO TRS80PRO)

Free-Form Database — 3BY5, a free-form information management program. Set up and store, retrieve data and generate 3-by-5 cards of information in whatever format you wish. Search ASCII, WordStar and WordPerfect files for text. File 3BY5.ARC in Data Library 6.

THE COLOR SIG
(GO COCO)

Biorhythms — Program for the Tandy Color Computer that will generate both a numerical and graphic output of biorhythms for any date. File BIORHY.BAS in Data Library 2.

Dave Peyton co-authored How to Get the Most Out of CompuServe. *His CompuServe User ID number is 76703,244.*

Services Itemize Impact of New Tax Law for Telecommuters, Entrepreneurs

Understanding how the new tax law affects your business may seem like a taxing procedure. However, small business owners can turn to several sources on the CompuServe Information Service to make the learning process easier.

The International Entrepreneurs' Network (GO USEN) offers two files about the new tax law, TAXCHT.TXT and NEWTAX.TXT, both in Data Library 5. TAXCHT.TXT contains a chart that compares the old tax law and the new tax law on 20 different points. NEWTAX.TXT explains in detail the changes resulting from the new tax law. Both files were provided by the accounting firm Ernst & Whinney.

Information on how the new tax law affects the home-based business is available through the Working From Home Forum (GO WORK). That forum has a file called NEWTAX.LAW within its Law and Taxes section. The file addresses such issues as the tax deduction for a home office. For most home-based business people, the home office still can be claimed as a deduction under the new tax law. However, there are exceptions.

"There are a couple of minor changes in terms of calculation," says Paul Edwards, forum administrator of the Working From Home Forum. Under the new tax act, the amount of home office expenses deducted cannot exceed the gross income from the home-based business. "It's one of the few tax shelters that is still left for the middle class," says Edwards in describing the home office deduction.

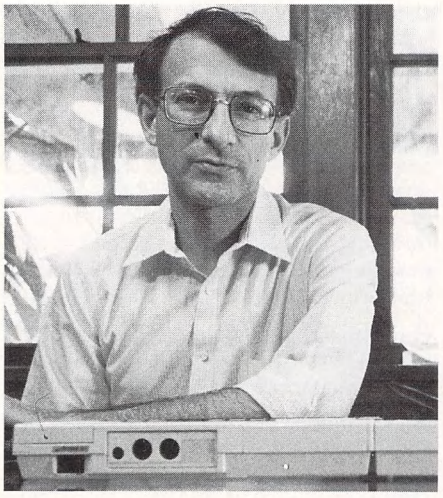
Self-employed individuals also can deduct from adjusted gross income 25 percent of the amount paid for their family medical insurance. The amount deducted cannot exceed the amount earned by their own business.

The Internal Revenue Service Tax Information Database (GO IRS) offers IRS publications that you can view or order online. You can choose the publications you need through a menu or search the database to locate topics of interest.

Each year, the IRS offers a special publication on tax changes that affect the filing of returns. This year, an additional publication (Publication No. 921, "Explanation of the Tax Reform Act of 1986 for Businesses") addresses the recent tax reform legislation. It is scheduled to be available this month.

H&R Block now offers a tax information database through The Electronic Mall (GO HRB). This database includes information on charitable deductions, important tax dates, IRAs and the tax reform legislation's effect on personal income tax returns. Descriptive information about H&R Block and its founder also is included.

The database also features electronic tax filing and a tax trivia column. H&R Block offers free recordkeeping that can help you save tax dollars by ensuring that every deduction is received.



Explaining the tax law: *Edwards*

Since most of the new tax reform provisions go into effect in 1987, they will not affect 1986 tax returns. However, business owners will need to take the new provisions into account when conducting 1987 business activities. Several changes under the new tax law will be important for businesses, according to the International Entrepreneurs' Network files.

Losses from businesses and investments, including limited partnerships, are not automatically deductible as they were under the old law. Most losses can be claimed only when they offset income.

All ordinary and necessary business expenses, including properly documented business meals and entertainment expenses, still can be deducted. However, with the exception of certain business banquets, only 80 percent of those meals and entertainment expenses can be deducted. The cost of leasing private luxury sports boxes is no longer deductible at all.

The new law repeals the investment tax credit for property placed in service after 1985 and cuts the rehabilitation credit for property placed in service after 1986.

Property depreciation still can be written off. However, because many assets have been reclassified, the available write-offs are less liberal.

In most cases, partnerships, S corporations and public service corporations will be required to operate on a calendar year under the new law.

Except for some banks and thrift companies, businesses will no longer be able to use the reserve method for writing off bad debts. Instead, the direct write-off method will be used.

Most corporations or partnerships involving corporations no longer can use the cash method of accounting. However, farmers, individuals, public service commissions and partnerships generally will still be permitted to use the cash method.

The benefit of the installment method no longer will be available for most installment sales, although several exceptions exist.

For corporations the current "add-on" minimum tax is replaced with an alternate minimum tax of 20 percent.

Under the new law, the annual use of NOLs and other carry-forwards is generally limited or altogether disallowed for ownership changes after 1986.

Liquidating corporations must report a gain or loss through the sale of property as if that property had been sold at its fair market value.

Other provisions of the new tax law deal with changes related to investment tax credits, incentive stock options, corporate acquisitions, the research and development tax credit, general business credit limitation, energy tax credits, at-risk rules, uniform capitalization rules, long-term contracts, income from discharge of indebtedness and expensing costs of tangible property. Many changes also affect employee benefit plans.

While the online information provides business owners with a helpful overview of the new tax law, Bruce Kullberg, forum administrator for the International Entrepreneurs' Network, suggests that business owners not spend a great deal of time trying to interpret the new tax law for themselves. "What you shouldn't do is spend a lot of time trying to figure it out instead of running your business," he says. "The best advice for anybody is to consult with an accounting firm."

— Kathy Baird

IS GETTING THE ANSWER TO SOFTWARE PROBLEMS A BIGGER PROBLEM THAN THE PROBLEM?

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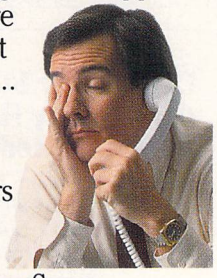

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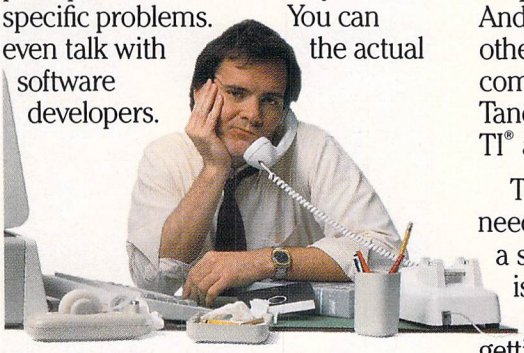

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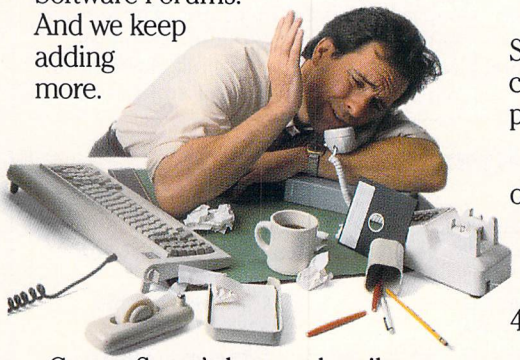

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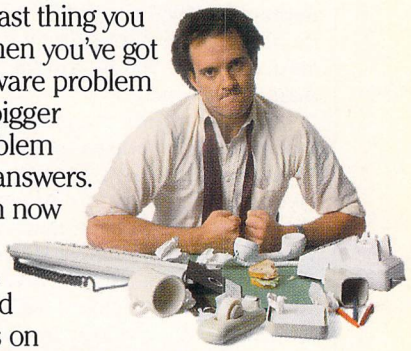

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New Service Monitors OTC Stock Data

CompuServe will soon offer a way for subscribers to track thousands of fast-growing, over-the-counter stocks. The new service, called the OTC NewsAlert, compiles information likely to affect a stock's price from Securities and Exchange Commission filings, international newswires and individual companies. The service then puts the data into an easy-to-use format for investors.

"Stocks traded over-the-counter, or through the NASDAQ system have for years offered investors above-average price appreciation," says Scott Clyde, CompuServe's financial services product manager. "From January 1976 through September 1986 the NASDAQ composite index alone outperformed the Standard & Poor's 500 by a ratio of more than two to one.

"However, until recently, tapping those superior returns often was time-consuming and risky for the individual investor," says Clyde. "Major business publications have been unable to provide news items on most smaller companies. In addition, typical investors had no access to specialized reporting systems used by professionals. This kept the small investor from obtaining timely information on insider ownership trends, recent earnings performance or other material information on these firms. Investors in these companies were often flying blind."

Tapping into OTC stock data: *Clyde*

The OTC NewsAlert will help bridge the information gap between individual and professional investors. The service collects time-critical information on NASDAQ-traded and Pink Sheet companies from a number of sources.

One source of information is SEC reports, some collected from the Comtex Washington Bureau in the Disclosure reading room. These include Form 144 filings (proposed sale of securities), Form 4s (open market insider trades) and Schedule 13Ds (proposed acquisition of five percent or more of the outstanding shares of a public corporation). Reports usually are put on the system the same day they are received.

Items also come from major wire services, including The Associated Press, United Press International and PR Newswire, and foreign wires such as Agence France Presse, Deutsche Press Agentur and KYODO.

Additional information comes from company-issued releases, such as dividend and earnings announcements, and data is verified by OTC NewsAlert personnel. Listings of NASDAQ additions and deletions, notices of initial public offerings and summary statistics on NASDAQ and OTC trading also are sources of information.

OTC NewsAlert's information is designed for easy retrieval. Investors can conduct broad searches of the database going as far back as a year or have today's information on a specific company automatically saved for later viewing. There will be a surcharge of $15 per hour for the service.

"The OTC NewsAlert will be an excellent complement to CompuServe's OTC stock information services," says Clyde. "These services include data extracted from annual reports and SEC filings, daily market prices and historical dividends, and two securities screening products, SCREEN and COSCREEN.

"The service illuminates an area of the investment universe overlooked by the major institutions. We think the OTC NewsAlert will help CompuServe subscribers find the hidden gold in the over-the-counter market."

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Business Briefs

FDIC Database Adds Information

CompuServe has added historical information on small banks with less than $100 million in assets to its compilation of FDIC data.

The database previously included annual figures from the most recent year and a quarterly report from the most recent quarter for these smaller banks. Now, figures from the same quarter last year have been added for comparison.

For larger banks with more than $100 million in assets, the database still includes year-end reports for the past five years, and quarterly reports for the most recent quarter and for each quarter of the past year.

Income and expense figures are available for 14,000 banks. Assets are listed by category, providing a breakdown on consumer, mortgage and commercial funds. CompuServe's commercial customers can type R 10K PLUS to access the database. For more information, contact the nearest CompuServe branch office.

VALUE/Spectrum Interface Developed

VALUE Graphics now can interface with Spectrum, providing additional graphics capabilities. With the new feature, line chart shading is possible. A user data file interface also is available, enabling users to enter their own data or to retrieve information from VALUE.

Instructions for using the new interface are included online. CompuServe's commercial customers can access the service by typing R VALUE. For more information, contact the nearest CompuServe branch office.

Value Pricing Data Enhanced

Value Pricing Data, which allows users to download securities pricing data, recently has been enhanced. The service now allows users to index information on a particular issue and to a point in time.

Daily prices for a particular issue can be retrieved, then divided by the price on a given date, giving the percentage of increase or decrease since that time. One such series then can be divided by another, allowing users to compare two issues to one another or to the overall Standard and Poor's 500. Users also can build their own market indexes by combining companies of their choice rather than using only the S&P 500 or pre-defined market indexes.

CompuServe's commercial customers can access it by typing R VP DATA. For more information, contact the nearest CompuServe branch office.

Demographic Profiles Available

Summaries of the demographic makeup of the entire United States, any state or county now are available through the US-State-County Demographic Profiles on the CompuServe Information Service.

The reports include information on population, race, age, household income, types of households and occupations of residents. Also included are the status of occupied housing, average home value and rent, and the age of housing structures.

Users first can generate information on a given ZIP code through The Neighborhood Report and then use US-State-County Demographic Profiles to compare the ZIP code to other demographic areas.

The surcharge is $10 per report. To view a sample US-State-County profile, type GO DEMOGRAPHICS at any CompuServe Information Service prompt, then select item 3 from the menu.

New Forum Lets ADR Software Users Discuss Products and Applications

The CADRE Forum enables software users to discuss new software products and applications. Although aimed primarily at owners of Applied Data Research software, the forum, which debuted on CompuServe last fall, welcomes any user with questions or ideas.

Forum Administrator Ben Driver compares the forum's purpose with the need for driving lessons: "A car's owner's manual, like the operating instructions on a software package, tells a new driver how the car works, but unless you take driving lessons, you may not learn to park on a hill or drive in the snow. Just as driving lessons teach you the fine points of driving a car, the CADRE Forum can show you how to put your software to its best use."

Since ADR maintains its own support network, the CADRE Forum is not designed as a support system for ADR products. Instead, members share information about combining software systems to their best advantage, including finding ways to integrate ADR equipment with products manufactured by other vendors and making modifications in ADR products.

Enhancement Requests, one of the forum's data libraries, invites users to record suggestions for modifying ADR software. Then users who hold contracts with ADR vote annually on whether they want to adopt the various suggested changes. Members are encouraged to brainstorm with others about possible modifications before entering their ideas in Enhancement Requests.

The major benefit of CADRE Forum membership is that ADR software users do not have to "reinvent the wheel" to get maximum use from their software, according to Driver. Instead, they can turn to the forum for advice based on first-hand experience and technical expertise.

To access the CADRE Forum, type GO CADRE at any prompt on the CompuServe Information Service.

— Linda Barr

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Electronic Edition Hardware Reviews

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Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

IBM Quietwriter Model 2 Printer.
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Computer: *Any computer with IBM-compatible parallel printer port.*

Toshiba's 3.5-Inch Disk Drive.
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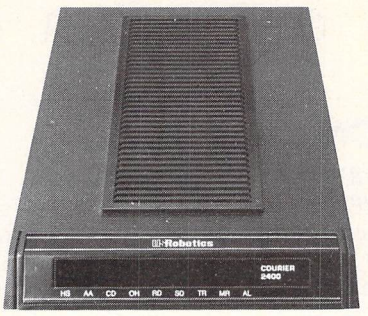

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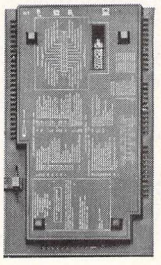
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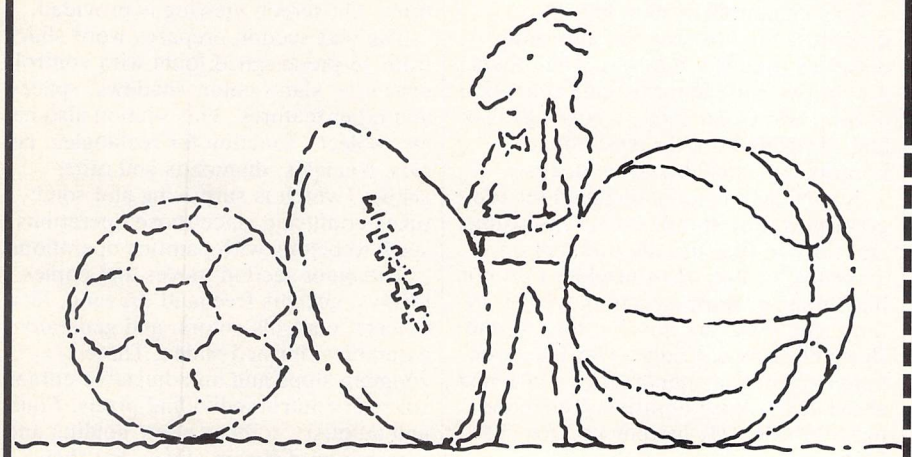

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Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.

Media: Requires one or more double-sided diskette drives or a diskette drive and a hard disk.

Copy Protection: Superlok protection scheme allows installation of two copies so a key disk is not required to run the program; must be uninstalled before backing up a hard disk and to reset installation counter.

Required Peripherals: Color or monochrome monitor; supports 320 by 200 four-color medium-resolution (CGA cards) from IBM, AT&T and Olivetti computers, 640 by 350 16-color high-resolution (EGA cards) from IBM computers and 720 by 348 monochrome from Hercules Graphics Card.

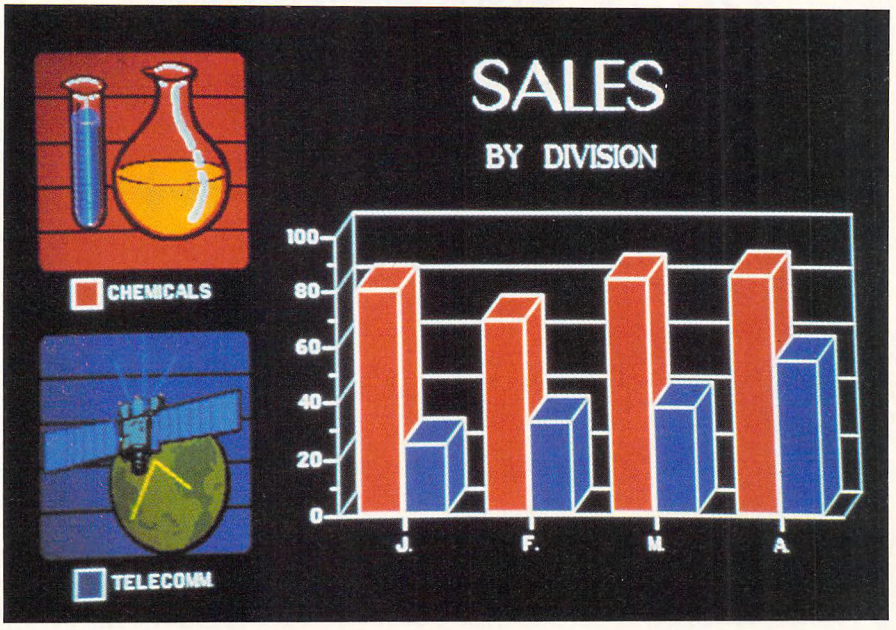
Other Requirements: Minimum 384K RAM for medium-resolution modes or 640K RAM for higher resolution modes.

Optional Items: Additional diskette drives or hard disk (hard disk or removable cartridges strongly recommended); Microsoft Mouse or Mouse Systems Mouse; video digitizer; any of numerous supported ink jet, dot-matrix or laser printers or pen plotters.

System used for test: 640K Compaq Deskpro Model 2 with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), 2MB Maynard Accent Expanded Memory Card with bus-driven Maynard Mouse (Microsoft compatible); Torrington Manager Mouse (Mouse Systems compatible); Amdek Color 722 RGB monitor, STB Systems EGA Plus video adapter and Epson FX-85 printer; running IBM PC-DOS 2.10.

List Prices: $695 for VCN Concorde and its extensive Image Database (users of VCN ExecuVision may trade up for $350 plus return of manuals); $350 for supplementary Image Database II with additional image libraries.

Reviewed by Ernest E. Mau



As VCN ExecuVision's successor, VCN Concorde (version 1.00) carries a lofty price tag, but it is the most visually impressive and comprehensive business and presentation graphics system I have seen.

Touted as integrated and EGA-compatible "total graphics," Concorde includes charting and graphing, drawing and painting, scripted slide shows, animation and a "clip art" library with more than 2,000 icons, symbols and images. The key is Concorde's integration. Individually, there are more versatile charting programs, more flexible drawing systems and comparable animation techniques. Yet Concorde stands alone for producing shows and presentations within one system.

This mammoth system has 28 diskettes. Six are program and setup diskettes (one is a tutorial). The others are for two slide libraries, one animation library, two demo disks, a language disk and 16 image libraries (additional libraries are available at extra cost).

A hard disk is recommended for program files, but libraries, demonstrations and tutorial files usually are kept on diskettes for use when needed. I do not like diskette swapping and moved everything but demo and tutorial files to one Bernoulli Box cartridge. The 114 essential program and support files consumed about 2MB. With libraries, Concorde used 9.24MB (4K increments) for 791 files.

Concorde has five principal parts: Create, Produce, Show, Hardcopy and Capture. Create and Produce are where the most time is spent preparing slides and assembling presentations.

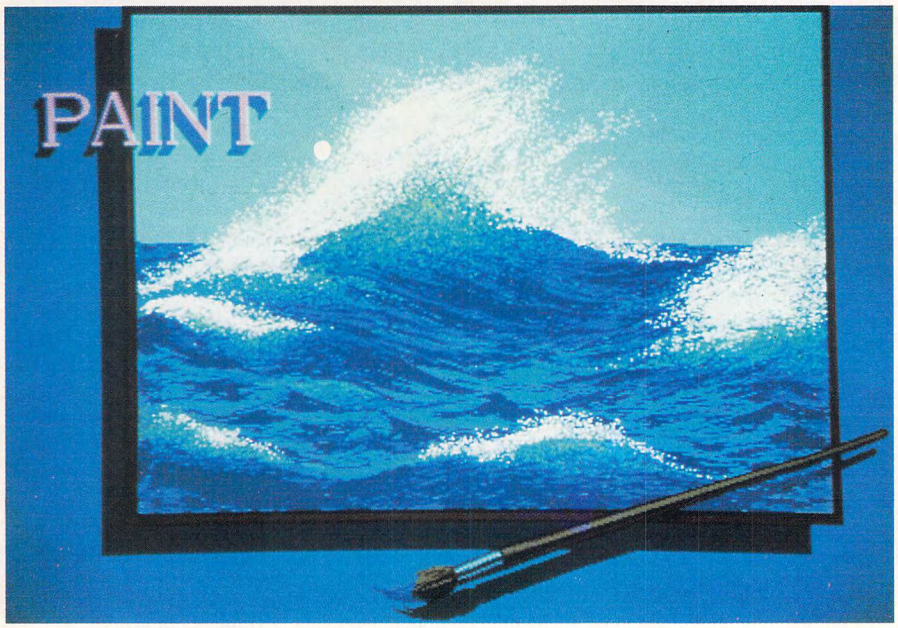
Create's graph, text, paint and system sections prepare the slides. These sections interact, so text can be overlayed on pictorials, graphs can be set into backgrounds, and so on.

The system section basically loads slides and images from disk libraries and saves new slides.

Graphing uses "layout sheets" and spreadsheet-like data arrays to prepare pie, cluster, stack, line, area, x-y and icon charts. Data may be entered from the keyboard or imported via DIF, 1-2-3, Symphony or Multiplan files. The user controls titles, legends, axes, etc., and can use 16 type fonts and dozens of features. On-screen viewing is provided.

The text section prepares word slides from 16 predesigned fonts with control over size, slant, color, shadows, spaces and other features. This section also has an "object" function for rectangles, circles, triangles, diamonds and other shapes, which is surprising and sometimes confusing since those operations seem to belong with painting operations.

The paint section moves and copies images, accepts freehand drawing, fills objects, controls colors, and generally assembles finished slides. Three zooming steps and an adjustable cursor size can control individual pixels. Main and auxiliary screens allow holding and working on different slides, but they switch around so the auxiliary is always the unseen screen. That can be



confusing, and it is easy to erase or change the wrong screen.

Within Concorde's Produce function, extensive scripting controls prepare animated and multi-slide shows. Methods of showing slides include replacement, melt, push, overlay and others, each with several variations. Pacing, speed, musical tunes and extensive animation all can be incorporated. While considerable practice is needed to master the options and controls, the resulting shows are worth the effort.

These and other capabilities make Concorde remarkably powerful, but it has flaws. It is supposed to support Microsoft and Mouse Systems mice, but my supposedly compatible mice did not work, forcing me to use cumbersome keyboard controls. Few images in the database have been converted for EGA high resolution. That database contains CGA-compatible ExecuVision drawings, which Concorde merely scales into a screen corner. When enlarged, they become intolerably ragged and take hours to rework. Most users probably will reconfigure Concorde for CGA medium-resolution just to speed using image libraries.

Incidentally, a separate "capture" program can acquire screens from other applications. I used it with graphics packages and CAD systems and found only a few programs where it did not work.

Poor documentation detracts from the product, with much information missing or spread helter-skelter through two main manuals. I spent days trying to combine slides and images without wiping out work when loading new pieces and finally had to call the supplier's art department for the procedure. A third manual for the image database is an old ExecuVision book packed with instructions that do not apply to Concorde.

Another difficulty involves color changes when combining slides during creation or production. Despite controls over methods used, what was blue in one place sometimes became pink somewhere else, backgrounds change colors, etc. Some shifts are correctable, but the problem seems inherent in merging colors with other colors.

Despite some problems, I am fond of Concorde. If all image libraries are converted to EGA high-resolution art and manuals are rewritten, Concorde will be much improved. If more graphs such as bubble, line/bar combination and Gantt charts are added, it will be better yet. Version 1.00 is good, verging on great, but could be better.

Ernest E. Mau, a full-time free-lance writer and Online Today *reviews editor, is based in Aurora, Colo.*

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Computers: Print Master available for IBM PC and compatibles and for Commodore; The Print Shop available for IBM PC, PC-XT, PCjr and compatibles, and for Commodore, Atari and Apple; The Newsroom available for IBM PC, PCjr and compatibles, and for Apple II Plus, IIe and IIc.

Operating Systems: PC-DOS or MS-DOS; Print Master also available for Commodore operating system; The Print Shop also available for Commodore, Atari and Apple operating systems; The Newsroom also available for Apple DOS.

Media: All IBM versions require at least one double-sided diskette drive.

Copy Protection: Print Master is not protected; The Print Shop is protected and permits one backup diskette copy or one installation on hard disk; The Newsroom is protected such that copies may be made to restore damaged files on master diskette, but original must be in drive A to run program.

Required Peripherals: All programs need graphics card and dot-matrix or laser printer with graphics.

Other Requirements: All programs need a minimum 128K RAM.

Optional Items: The Print Shop supports a joystick.

System used for test: 256K Compaq Portable Computer with dual diskette drives and Okidata Microline 84 printer; running PC-DOS 2.1.

List Price: Print Master costs $59.95 for IBM or $34.95 for Commodore; The Print Shop costs $59.95 for IBM and $49.95 for Commodore, Atari or Apple; The Newsroom costs $49.95 plus $29.95 for clip art.

Reviewed by William J. Lynott

When Apple Computer introduced the Macintosh in 1984, it opened a world of quality graphics not previously available to personal computer users. When Apple followed with its LaserWriter a year later, the marriage was made in heaven. With the Macintosh capable of producing sophisticated graphics and printing fonts, and the LaserWriter able to transfer it all to paper, the world of desktop publishing was born.

Once hardware was available, software publishers started producing software that would do it all: page layouts, graphic design and manuscript preparation. A program called PageMaker quickly became the most popular of several available complements to the Apple team. Together, they made a professional desktop publishing system that spawned a new industry.

Unfortunately, the same attention has not been paid to IBM computers. Although releases are planned, I have yet to see desktop publishing software for IBM and compatible computers that is comparable to Macintosh.

But there is some good news. While currently available software for the IBM PC family may not be able to produce the ultra-sophisticated graphics and near-typeset quality required for professional or commercial use, several graphics programs can do surprisingly good work at a modest cost. Instead of commercial-level work, however, these programs are best suited to banners, posters, simple greeting card design and basic newsletter layouts.

Quality and resolution are limited by the printer used with these products, with 9-pin or 24-pin dot-matrix and laser printers representing three different quality levels. Daisywheel printers cannot be used with these programs. Still, you may be pleasantly surprised at the level of work these programs turn out with just a 9-pin dot-matrix printer.

For this review, I looked at three popular programs in this genre.

Print Master

Print Master is easy to use. Just pop the program's single disk into drive A, put a formatted disk for saving work into drive B, and follow the menu. I was printing my first graphic design (a poster) within 15 minutes of opening the package. And I was genuinely surprised at the quality of the printout.

After loading Print Master and defining a printer, the program presents a master menu with eight choices: greeting card, sign, stationery, calendar, banner, graphics editor, printer setup and exit to DOS. Selections are made by moving the cursor to a choice and pressing enter. Next, the program asks for a choice from an extensive collection of borders, pictures and type fonts. All necessary graphics are included on the program disk, and the selection is comprehensive enough that users should be able to produce an almost infinite variety of layouts.

Through simple cursor maneuvering, users may alter the design of existing graphics or even draw their own, but I must confess that a non-artistic nature sharply limited my designs.

What makes Print Master unique in this group is a calendar format in the graphics selection that can make fancy personalized calendars for any month in the years from 1900 to 2099.

The Print Shop

The Print Shop is similar in operation to Print Master and just as easy to use.

The eight choices on Print Shop's main menu are greeting card, letterhead, banner, screen magic, graphics editor, setup and exit. All menu choices function in the same way with options chosen by moving the cursor with the keyboard or optional joystick. To choose a border for a greeting card, for example, just keep moving the cursor through the selections until it reaches the one wanted. Then press the Return key to complete the selection. Use a similar procedure to choose from the large collection of available graphics.

Once graphics are laid out as wanted, choose from several type fonts and sizes for the text of whatever message is to be written. After you select the font, the text entry screen appears. Text is typed in the normal way and is shown on the screen in the same font as will be used for printing on paper.

The Screen Magic function of Print Shop is a screen printing utility to print high-resolution graphics that may have been created and saved by some other graphics program.

The Newsroom

The Newsroom is the slickest program in this group. Although it is not the easiest of the three to learn, I felt it was the most fun to use.

The Newsroom is intended specifically for designing and printing newsletter and newspaper formats. The main menu is a cartoon depicting a newspaper office,

and various program functions are chosen by entering the corresponding "departments." Users can choose from among the copy desk, photo lab, wire service, press, layout or banner departments.

As in the other two programs, graphics and print fonts are selected from a large collection. Unlike the others, this program's graphics are included on a separate disk accompanying the package, and an optional second disk of additional graphics is available at an extra cost.

The Newsroom's unique feature is its "wire service." In this mode, text and graphics may be sent and received between Apple, IBM and Commodore computers. Thus, junior journalists with different computers may work on the same publication from different locations.

If putting out a newsletter or junior newspaper is your objective, The Newsroom may be your best choice from this group.

Summary

If you want to have fun with graphics or publish a home-grown newsletter, any of them will do the job at a reasonable cost.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

Print Master
GO EBB or circle 15 on the Reader Service Form.
The Print Shop
GO EBB or circle 38 on the Reader Service Form.
The Newsroom
GO EBB or circle 39 on the Reader Service Form.

Trademarks: Apple, Macintosh and LaserWriter (Apple Computer Inc.); IBM, IBM PC, PC-XT, PCjr and PC-DOS (International Business Machines Corp.); MS-DOS (Microsoft Inc.); Okidata Microline (Okidata Div. of Oki America Inc.); Print Master (Unison World Inc.); The Newsroom (Springboard Software); The Print Shop (Bröderbund Software).

Analyze!

Provides Spreadsheets for Amiga

Micro-Systems Software Inc.
4301-18 Oak Circle
Boca Raton, FL 33431
305/391-5033 or 800/327-8724

Computers: Commodore Amiga.
Operating System: Intuition.
Media: Supplied on 3.5-inch disk.
Copy Protection: None; backups are encouraged.
Required Peripherals: None, but 512K Amiga highly recommended.
Optional Items: Color monitor; printer; external disk drive.
System used for test: 512K Commodore Amiga with external disk drive, Commodore 1080 monitor and Epson RX-80 printer.
Retail Price: $99

Reviewed by Cheryl Peterson

Analyze! once was the only Amiga spreadsheet available, and it has the essential features needed for creating a respectable spreadsheet. The two samples included provide an idea of the program's possibilities.

When Analyze! boots, you are asked to set a memory allocation for the current spreadsheet. If you are loading an existing spreadsheet, this must be big enough to hold the file or the load will fail. The documentation recommends staying under 200K for a 512K Amiga.

The 64K default allocation allows a good-size spreadsheet. Using sparse matrix technology, a 200K Analyze! spreadsheet can be much larger and contain many more cells than an ordinary spreadsheet program can fit into the same memory space. Instead of reserving space for "empty" holes, it tracks them by range, so they occupy almost no space. Micro-Systems says Analyze! can handle a spreadsheet as large as 256 rows by 8,192 columns.

Analyze! is not recommended for a 256K Amiga because it is a large program and leaves little memory once loaded. With a 512K machine, it is possible to run Analyze! in two windows, leaving 84K of workspace. Because it runs under the Workbench, other applications can run simultaneously.

Analyze! takes advantage of the Amiga's mouse and menu capabilities, yet still offers keyboard access to important functions.

Moving around within the spreadsheet is done by pointing with the mouse, using the Arrow keys or entering direct cell references from the keyboard. Combining the Shift key with Arrow keys enables larger jumps.

One function key toggles in and out of Edit mode. For range copies or moves, another function key calls a menu of currently defined ranges, eliminating the need to retype range information. Ranges can be named for easy reference. A third function key toggles absolute and relative cell reference. A fourth key goes directly to any cell specified.

The last function key recalculates the spreadsheet. Since recalculating a large spreadsheet whenever a new value is entered causes delays, turning off automatic recalculation saves time. This key then forces recalculation on demand.

Two-key combinations control other frequently used functions. A status box displays the recalculation order and method, format of numeric or label displays, column width, state of the protection on/off toggle and memory.

Other commands available using the Amiga key with another key are quit, range copy, range erase and output to printer. These are available in menus so combinations need not be memorized.

Two pleasing features are repeating labels and locking titles. Entering a backslash (\) and another character like an underline or asterisk causes the cell to be filled with the designated character, making it easy to create decorative lines and separators. If cells are later resized, the separators are, too.

The title lock lets you see the titles even though you scroll off their immediate page. The function locks vertically, horizontally or in both directions for single or multiple rows or columns.

Math functions include all standard operators plus present value, future value, date, if/then, payment, random, standard deviation and table lookups, plus standard logical operators.

Cells can be set for general, fixed, scientific, currency, commas, percent, plus or minus, text or date formatting with cell information set to print flush right, flush left or centered. These settings apply to the whole sheet or to only specified ranges.

Print adjustments are almost as flexible as those in a word processor. Where alternate type styles or other fancy trimmings are desired, the program will print to disk as an ASCII file that should work with most word processors. The program has controls for margins, borders, page lengths, headers and footers. It can print cell values or formulas. End-of-line characters can be set for printers requiring carriage returns with or without line feeds. If desired, ranges can be printed, instead of the entire file.

Unlike some other spreadsheet programs, Analyze! has no graphics capabilities as such, although a roundabout method can simulate simple bar graphs with plus and minus symbols.

For its price, Analyze! should be adequate for most spreadsheet users and will handle common applications that don't need graphing or fancy interfacing. At this writing, it is the least expensive, full-featured spreadsheet available for the Amiga.

Cheryl Peterson, a free-lance writer from Miami Beach, writes reviews for several computer magazines. Her CompuServe User ID number is 72366,2645.

GO EBB or circle 16 on the Reader Service Form.

Trademarks: Amiga (Commodore Business Machines Inc.); Epson RX-80 (Epson America Inc.).

Directory

Eases DOS Accesses

Venture Software
16200 Ventura Blvd.
Encino, CA 91436
818/986-4110

Computers: IBM PC, PC-XT, PC-AT and true compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires one diskette drive or a hard disk.
Copy Protection: None.
Required Peripherals: None.
Other Requirements: Needs 16K of free RAM.
Optional Items: None.
System used for test: 640K IBM PC with 20MB hard disk and one 360K double-sided, double-density diskette drive; running PC-DOS 2.1.
List Price: $59.95

Reviewed by James Moran

Directory is billed as a file management tool and a DOS enhancer. The idea is to provide an easy way to access disk files and enter DOS commands. Since all Directory actions are implemented through function keys, this product succeeds in simplifying the DOS command structure.

Installation is quick and easy with the automated install procedure provided. Once started, Directory stays active in memory and takes from 10K to 16K, depending on which piece of vendor literature is to be believed. A legend of command-key functions usually is present at the bottom of the screen, except when Directory is used to activate another program or batch file.

There is not much to say about a product that is basically an enhanced DOS shell. Of course, DOS functions are quicker to activate through this product's menu than directly through DOS, but the price seems high for the convenience. The enhancements such as the program executor, file attribute maintenance and file tagging are handled just as well by other products. There is not anything operationally wrong with Directory, but there is not anything new either.

One place Directory does fall down is in its documentation. The developer apparently thinks context-sensitive help files are superior to a manual. So, instead of a printed manual, a two-page quick reference card is supplied. Users desiring a manual have to print one from a file supplied on the distribution diskette, which doesn't seem reasonable considering the price of the product.

I'd pass on this product.

James Moran is a free-lance writer and frequent contributor to Online Today. *His CompuServe User ID number is 70007,2253.*

GO EBB or circle 17 on the Reader Service Form.

Trademarks: Directory (Owl Software Corp.); IBM, IBM PC, PC-XT, PC-AT and PC-DOS (International Business Machines Corp.); MS-DOS (Microsoft Corp.).

MacBillboard

Proves Bigger Can Be Better

CE Software
801 73rd St.
Des Moines, IA 50312
515/224-1955

Computers: Apple Macintosh 512K, Macintosh XL and Macintosh Plus.
Operating System: Macintosh desktop environment.
Media: Supplied on one single-sided diskette.
Copy Protection: None.
Required Peripheral: Apple ImageWriter printer.
Other Requirements: External drive (recommended for single-sided operation); Apple ImageWriter II for color printing.
Optional Items: Hard disk; Apple LaserWriter printer.
System used for test: 512K Apple Macintosh with single-sided internal drive, 800K double-sided external drive and Apple ImageWriter printer.
List Price: $35

Reviewed by Joe Farace

CE Software's MacBillboard combines MacPaint-like graphics with the ability to create large drawings, in color if desired.

MacBillboard requires 512K of memory, and the master disk has only 30K of spare storage. For a 512K Macintosh, the manual warns against using RAM disks, disk caches or Apple's Switcher utility. To print large drawings, you will need an external drive to temporarily store the document for printing. With double-sided drives, the best approach is to copy the MacBillboard disk onto a double-sided disk.

MacBillboard's graphics editor, "GEEZ," makes MacPaint users feel at home, and both clip-art and MacPaint documents can be opened easily. Users unfamiliar with MacPaint are assisted by a well-written and illustrated 52-page manual.

One big advantage MacBillboard has over MacPaint is split window editing. After selecting "Use split screen editing," you will see the entire page of art on the screen's left side, while the right side becomes a scrolling window with full access to the graphics editor.

The MacBillboard disk also includes MacBanner, which produces banners using large type and graphics. Although I miss an italic type function, MacBanner is easy to use. A 21-page banner took slightly more than 12 minutes to print in "faster" (ImageWriter standard) mode. While experimenting, it is wise to use old ribbons; MacBanner wears out ribbons quickly.

MacBillboard may not be for buttoned-down information workers, but it has uses such as letting small retail businesses create posters and sales banners for their stores. For the rest of us, it is a great MacPaint replacement or supplement. Given CE Software's fine reputation for producing quality software, it is a bargain at $35.

Joe Farace is a writer and photographer from Denver. He is a contributing editor of Photo Methods *magazine and his reviews of Macintosh software will appear in an upcoming book from Arrays Inc.*

GO EBB or circle 18 on the Reader Service Form.

Trademarks: Apple, Macintosh, XL, Macintosh Plus, MacPaint, ImageWriter Switcher and LaserWriter, (Apple Computer Inc.); MacBillboard and MacBanner (CE Software).

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ONLINE TODAY

Graphics Magician Junior Program

Provides Apple Graphics

Polarware/Penguin Software
830 Fourth Ave.
Geneva, IL 60134
312/232-1984

Computers: Apple II, II Plus, IIe and IIc; also available for Commodore 64/128.
Operating Systems: Apple DOS 3.3; available for Commodore.
Media: Requires one diskette drive.
Copy Protection: None.
Required Peripherals: None.
Other Requirements: High-resolution version will run in a 48K Apple; double high-resolution Apple version requires 128K of RAM.
Optional Items: Besides keyboard input, both Commodore and Apple versions accept input from joystick or mouse.
System used for test: Apple IIe with color monitor and Epson FX-85 printer.
List Price: $19.95

Reviewed by Brian D. Monahan

The Graphics Magician Junior is a graphics program for those who do not need the programming features of the popular but more powerful Graphics Magician. The program's developer calls it "simple to use." While it is simple to use, it is not so simple to learn.

The program is sold without a traditional manual. All instructions are contained on a large, double-sided poster. While the poster contains the necessary information, there were several times while learning the program that I would have preferred the security of a manual with an index and step-by-step tutorial.

The disk includes two program versions: high-resolution and double high-resolution. The double high-resolution choice offers more colors and better resolution but is only usable on the IIc or IIe with 64K and an extended 80 column card.

Pictures created with the Apple version are saved in a special packed format to maximize the number of pictures that can be stored on a diskette. To use them in other programs, you must use a special machine-language routine supplied with the program.

The heart of the program consists of two screens: the selection screen and the drawing screen. The selection screen includes three arrows. One points to the current drawing mode, which includes seven choices, ranging from a freehand line mode to a brush mode. The selection screen also offers disk choices, including saving a picture, loading an existing picture, initializing a new disk or looking at the files on the disk. The program uses a variety of key combinations to move about the screen and make choices. To the developer's credit, these combinations are clearly described and are relatively consistent from screen to screen.

The drawing screen is where you actually draw, using options chosen from the selection screen. The space bar toggles between the two screens. Drawing is easy and fun, although it takes time to get used to toggling back and forth between the two screens.

A major criticism of the program is in the documentation of printing capabilities. Printing of the graphics created is not mentioned anywhere. Certainly the graphics lose something when printed in black and white, but the issue of printing should have been addressed clearly and was not. Part of the problem of printing Apple graphics is inherent in the hardware, but the manufacturer should have discussed this.

Another program limitation is its response time. It is necessary to keep an eye on the screen when using the program since keys do not "take" if pressed too quickly. In fact, it seemed that keys were ignored more often than they were recognized.

The Graphics Magician Junior does what it claims to do. The program is easy to use, although the documentation might have been better. Although I failed art in fourth grade, I was able to create some attractive graphics quickly and easily.

For business and professional use, this program will create simple graphics. Of course, it does not let the user create graphs based on existing data such as that imported from other programs, but it doesn't claim to do that either. In all, the program is easy to use and fairly priced.

Brian D. Monahan is an associate professor of computer science at Iona College in New Rochelle, N.Y.

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Trademarks: Apple (Apple Computer Inc.); Commodore (Commodore Business Machines Inc.); Epson FX (Epson America Inc.); The Graphics Magician (Polarware/Penguin Software).

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Dean Witter Reynolds	72	180	360

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120 Wall Street, New York, NY 10005

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TAS-Plus:

A Powerful Relational Database Manager

Business Tools Inc.
4038-B 128th Ave. SE
Bellevue, WA 98006
206/644-2015 or 800/648-6258

Computers: IBM PC, PC-XT, PC-AT and 100 percent compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Two double-sided diskette drives or one diskette drive and a hard disk.
Copy Protection: None.
Required Peripherals: Printer with at least 80 columns.
Other Requirements: Minimum 384K RAM.
Optional Items: None.
System used for test: 640K IBM PC-XT with IBM black-and-white monitor, IBM monochrome display and printer adapter, two diskette drives, Maynard 20MB hard disk and Okidata Microline 84 printer; running PC-DOS 2.1.
List Price: $69

Reviewed by William J. Lynott

When designing a database manager, most publishers strive to find the right compromise between power and price. Until recently, about all you could expect for less than $100 was a basic file manager. The price goes up when relational capabilities are added, and goes up more when programmability is needed. When I saw the price for TAS-Plus, I was skeptical. Here was a product that claimed to have top-of-the-line capabilities, but carried a price tag at the bottom end of the line. What was the catch? I am still looking!

To be sure, there are some advanced refinements of the dBase type not found in TAS-Plus, but I have never seen a database manager in this price range that had as many advanced features.

If you are a novice at data management, you can use TAS-Plus as a simple file manager and put it to work in less than an hour after opening the package. You can create your own database, add, delete, sort or modify records just by following the printed tutorial and the TAS-Plus pull-down menus. Besides the usual alphanumeric and numeric designations for fields, you also may choose from short date, long date and time.

Most DBMS users, though, eventually get to a point where they need relational capabilities to relate two or more files through a common field or fields. TAS-Plus is a fully relational product that lets you open up to 16 files simultaneously. And any open files can be updated, not just accessed. I have seen products at five times the price that do not have this capability.

To use TAS-Plus, just move the cursor to one of six main menu choices, press enter, and follow the prompts. I created a new database and added 10 records in less than 30 minutes.

I later converted a large database file from dBase III to TAS-Plus. I could not get satisfactory results using the built-in dBase conversion utility, but it may be designed for dBase II instead of dBase III files, which the documentation does not make clear. However, I had no problems when I converted the dBase file to straight ASCII format and then imported it into TAS-Plus.

I was more than pleased with the speed of TAS-Plus operations. Using a 1,500-record file, I could locate any record in less than two seconds. Sorting the entire file took about two minutes. TAS-Plus is written in assembly language and uses a binary search for locating records, which probably accounts for its speed.

While the built-in TAS-Plus report generator is limited to the basics, it should satisfy most general needs. It creates simple columnar reports up to 128 columns wide. Fields that were originally defined as numeric can have totals displayed. Once you have created a report, it can be saved for future use.

If you need a more complex arrangement than the report generator handles, you can choose the "edit program" function, which is part of the main menu "program" option. Yes, TAS-Plus is a programmable DBMS with its own program editor that prompts you as you create source code. It traps syntax errors before they get into your program, and the language is not particularly difficult to learn. It, too, has features not included in many more expensive database programs. In writing a program, for example, you may have the system date entered in a designated field.

TAS-Plus is a good example of a database program that grows with your needs. You can put it to work in simple applications and incorporate its more sophisticated features as your requirements expand.

While I rate the documentation as good overall, it is a bit uneven in spots, with explanations in some sections being either incomplete or hard to decipher.

Nevertheless, TAS-Plus crams a lot of value into a low price. It lets you use its built-in functions or take things into your own hands if you need more action. With its own program generator, run-time compiler and source code editor, this package offers a lot of bang for the bucks.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

GO EBB or circle 21 on the Reader Service Form.

Trademarks: dBase (Ashton-Tate); IBM, IBM PC, PC-XT, PC-AT and PC-DOS (International Business Machines Corp.); MS-DOS (Microsoft Inc.); Okidata Microline (Okidata Div. of Oki America Inc.); TAS-Plus (Business Tools Inc.).

Grammatik II

For Writing Style Analysis

Reference Software Inc.
330 Townsend St., #232
San Francisco, CA 94017
415/541-0222 or 800/872-9933

Computers: IBM PC, PC-XT and compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires at least one double-sided diskette drive or a hard disk.
Copy Protection: None.
Required Peripherals: Color or monochrome monitor; graphics capability is not required.
Other Requirements: Minimum 256K RAM.
Optional Items: Additional diskette drives or hard disk; printer; text editor or word processor (ASCII files, 15 commercial word processors and custom configuration supported).
System used for test: 640K Compaq Deskpro Model 2 with two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), Amdek Color 722 RGB monitor, STB Systems EGA Plus video adapter and Epson FX-85 printer; running WordStar 3.3 under IBM PC-DOS 2.10.
List Price: $89

Reviewed by Ernest E. Mau

I started using the original Grammatik years ago when it was Aspen Software's product and was the only writing style analyzer available for my CP/M computers. Later, I acquired Wang Electronic Publishing's conversion for MS-DOS machines.

Although I liked the old Grammatik, my use decreased after I obtained Oasis Systems' competing Punctuation & Style system that did some things better and

faster, especially punctuation proofreading.

I am not sure which version of Grammatik II I have; the diskette label says 2.0, but a program screen says 1.01. Regardless, it superficially resembles its predecessor but adds window dressing, impressive new capabilities and some unexpected difficulties.

Grammatik II looks nothing like the old program and is completely menu driven. On-screen problem reports are in neat blocks that show several lines of text surrounding a questionable item, identify the problem (with suggested changes) and provide up to six possible actions. Summary reports tabulate such statistics as the numbers of sentences, sentences shorter than 14 words, sentences longer than 30 words, actual words and average word lengths. They also identify shortest and longest sentences, count special user-defined statistics, indicate readability on a Flesch Grade Level (this review is 12th grade) and show percentages of passive voice and preposition use.

Bar charts can show how a document relates to the Gettysburg Address, a Hemingway short story and a typical life insurance policy on such points as percentages of passive voice.

Grammatik II has short and long phrase dictionaries to fit a computer's memory. The program is not memory resident, but the phrase dictionary is kept in memory while using the program. Analyses now may be done at "full" or "less strict" levels. Besides having error-type marks and holding suggested changes, dictionary phrases are tagged for levels. "Full" analyses report the most problems using every phrase, while "less strict" analyses omit tagged phrases and report fewer problems.

Users may mark problems (with codes if needed), insert suggestions in text or not mark at all. I do not like the option that inserts suggestions because it breaks lines to put them where they occur. The fragmented documents are hard to edit and reformat, so I use only simple markings.

Wildcards now give the phrase dictionary great flexibility. They accommodate phrasing variations easily and efficiently. For example, instead of itemizing variations on "exhibit" in "exhibit a tendency to," it can be entered as "exhibit* a tendency to."

However, wildcards are not adequately explained, and it is easy to miss a line that says wildcards cannot be the last characters in phrases. Such entries are accepted by the phrase editor but later are rejected by the main program. End-of-phrase wildcards should be allowed so experienced users can make room for new phrases by eliminating basically repetitive entries.

I am disappointed in the dictionaries. The big one contains slightly fewer than 1,000 phrases, with the manual saying 1,100 phrases are about all that can be held in memory. Multiple passes with different dictionaries are possible but inconvenient. Since dictionary entries affect the program's usefulness, things could have been improved by accessing whatever memory the computer has, including extended memory, to allow more phrases.

The dictionaries are inefficient, wasting too much memory for wordy explanations, quotation marks and other things. Using a text editor, I severely trimmed the clutter and cut about 175 phrases from the ASCII dictionary file, reducing it from 39K to 27K. I then added phrases from my highly customized dictionary developed for the old program. That could not be done quickly. Grammatik II uses different tagging than the old program and has no utility for merging phrase lists. It took four days of intense work to get the dictionary close to the way I wanted it. Serious users such as professional writers and editors can plan long sessions with their reference books to fine tune the dictionaries.

The supplied dictionaries also lack self-consistency. For example, "in agreement with" is recommended as a substitute for another phrase but elsewhere is designated as long-winded and to be replaced by something else.

Grammatik II improves on the original but still needs work. It is certainly worth having, and its abilities to identify almost two dozen predefined problem categories (plus four user-defined types), tabulate special statistics and even pick specific problem types to check are impressive. Yet, it lacks flexibility in punctuation checking, and the work needed to hone dictionaries for non-trivial applications may be excessive for many users.

Ernest E. Mau, Online Today's *reviews editor, lives in Aurora, Colo.*

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Trademarks: Alpha-10, IOMEGA and Bernoulli Box (IOMEGA Corp.); Compaq and Deskpro (Compaq Computer Corp.); CP/M (Digital Research Inc.); EGA Plus (STB Systems Inc.); Epson and Epson FX (Epson America Inc.); Grammatik and Grammatik II (Wang Electronic Publishing Inc.); IBM, PC, PC-XT, PC-AT and PC-DOS (International Business Machines Corp.); MS-DOS (Microsoft Inc.); Punctuation & Style (Oasis Systems); WordStar (MicroPro International Corp.).

Electronic Edition Software Reviews

The following reviews are available this month on *Online Today Electronic Edition* by typing GO OLT-230 at any prompt on the CompuServe Information Service.

ChiWriter 2.08 Scientific And Technical Word Processor.
Manufacturer: *Horstmann Software Design.*
Computers: *IBM PC, PC-XT and compatibles.*

Genifer Application Development Utility For dBase III.
Manufacturer: *Bytel Corp.*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

Your Personal Net Worth Home Money Manager.
Manufacturer: *Scarborough Systems*
Computers: *IBM PC, PC XT, PCjr. and compatibles; Apple IIpl:, IIe and IIc; Commodore C64 and C128.*

Map-Master Graphics Software.
Manufacturer: *Decision Resources, Inc.*
Computer: *IBM PC, PC-XT, PC-AT and compatibles.*

The Consultant Database System.
Manufacturer: *Batteries Included, Inc.*
Computers: *IBM PC, PC-XT, PC-AT, PCjr. and compatibles.*

Textbank File and Information Retrieval System.
Manufacturer: *Group L Corp.*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

Time Zone Conversion Program.
Manufacturer: *Portable Programs.*
Computer: *TRS Model 100.*

What's Best! Spreadsheet Enhancement.
Manufacturer: *General Optimization*
Computers: *IBM PC, PC-XT, PC-AT and compatibles.*

MaxiDesk Desk Accessories Package.
Manufacturer: *MaxiSoft Corp.*
Computer: *Commodore Amiga.*

DSBackup Hard Disk Backup Utility.
Manufacturer: *Design Software*
Computers: *IBM PC, PC-XT, PC-AT and compatibles; Macintosh and Macintosh-Plus.*

PaperClip II Word Processing System.
Manufacturer: *Batteries Included, Inc.*
Computer: *Commodore 128.*

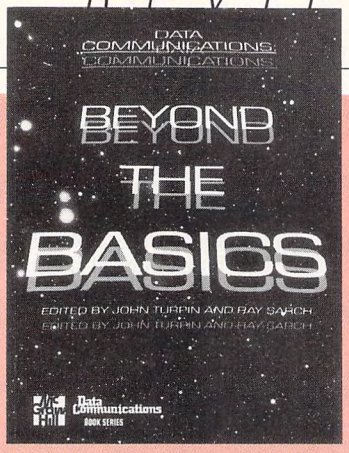
Data Communications:

Beyond the Basics

Edited by John Turpin and Ray Sarch
McGraw-Hill, 1986
305 pages, $28.95 (softcover)
Reviewed by James Moran

The transfer of data is of interest to many people who own or operate computers. Long before pioneering personal computer users powered up their first machines, commercial installations were connecting their systems through telephone networks. Communications technology has not stood still, and much of the knowledge obtained only a few years ago already is obsolete. *Data Communications: Beyond the Basics* supplements a more basic book, *Basic Guide to Data Communications*, published earlier by McGraw-Hill.

Like the first book, this is a collection of articles that originally appeared in *Data Communications* magazine, but the technology represented in this new book explores intermediate and advanced topics. Most of the authors are recognized as experts and the technology they explore belongs to the present and future.



Transferring data: *Practical suggestions*

Edited into five general topics, the book begins with a planning and design section. The 15 articles in this section explore such subjects as switches, data compression and network connectivity. The subject matter is complex and requires an appreciable understanding of communication basics. Machine-specific text tends to be oriented toward IBM equipment and software.

Section 2 explores data communications technology. Here is where theory and practice are examined. Questions on why digital transmission is better than analog, how Trellis encoding affects transmission and how hybrid satellite networks can be used for distributed applications are posed and answered. Specific application-oriented technology is the subject matter for the book's small third section.

The most rewarding portion of the book deals with the management of data communications. Readers can pick up practical suggestions for analyzing and presenting performance statistics, choosing software tools for managing networks and reducing telecommunications expenditures through the use of expert systems. Many articles in Section 4 are oriented toward financial savings, and this section alone could easily justify the book's retail price.

The book ends with a look at future network use. Many of the discussions relate to ISDN (Integrated Services Digital Network) use in the United States and to AT&T's proposed PBX-to-computer interface, DMI (Digital Multiplexed Interface). As with most of the book, the issues examined are highly technical and not meant for the casual reader. However, for data processing and communications professionals, this book offers expert advice on recent developments.

James Moran is vice president of Programming Service Corp., a Midwestern consulting and research firm. His CompuServe User ID number is 70007,2253.

Advanced MS-DOS

By Ray Duncan
Microsoft Press, 1986
468 pages, $22.95 (softcover)
Reviewed by Darrow Kirkpatrick

If you are a technically minded microcomputer user, you probably have plowed through quite a few "advanced" programming texts for the IBM PC — the ones that say they will explain the insides of the IBM PC, take the mystery out of assembly language or put the MS-DOS operating system to work. You probably have found useful bits and pieces in all of them. But if you're like me, you haven't found one that combines technical depth, useful examples and clear writing.

Theoretically, all the information a programmer could ever need is in the *IBM Technical References* or the Intel hardware cookbooks. The problem is that these lower-level references give the facts, but do not tell what to do with them. The "how-to" books frequently give the grand plan without enough detail.

It isn't easy to select the most useful facts and techniques from the vast amount of technical information available for the IBM PC and MS-DOS. *Advanced MS-DOS* by Ray Duncan succeeds.

Duncan, a respected computer columnist, has an easy-flowing, to-the-point style that makes good reading out of even the most elaborate technical descriptions. *Advanced MS-DOS* comes close to being the definitive source of MS-DOS information for programming in C and assembly language. It is a concise reference to the IBM PC basics and a readable guidebook with working examples of advanced programming techniques.

The book begins by discussing how MS-DOS is organized. It then explains program segment prefixes, COM and EXE programs, and C and assembler programming tools. It covers programming the keyboard, video display, printer and serial port devices. There are thorough discussions of the MS-DOS disk and directory structures, memory allocation, the EXEC function, interrupt handlers, device drivers and filters.

A companion disk also is available, although most of the program examples are brief and require only a few minutes to type in and try out. The example programs include a terminal emulator, a file dump utility, a simple command shell and a text file filter. The book is oriented toward providing working program templates that you can modify.

The second half of *Advanced MS-DOS* contains almost 200 pages of reference material. This includes detailed information on the DOS interrupts, IBM PC BIOS and the Lotus/Intel/Microsoft Expanded Memory Specification. Because Microsoft developed MS-DOS, this section is a complete and up-to-date reference.

The book assumes you have a basic familiarity with assembly language, the IBM PC and software tools such as editors, compilers and linkers. It is written in an accessible style, but is more of a reference work than tutorial. If you need to write sophisticated, low-level programs for your IBM PC or just want to understand how the pros do it, *Advanced MS-DOS* will give you the tools and techniques for state-of-the-art PC applications.

Darrow Kirkpatrick is an independent computer consultant and technical writer living in Rosendale, N.Y.

Micro to Mainframe

By Ronald F. Kopeck
Osborne McGraw-Hill, 1986
286 pages, $18.95 (softcover)
Reviewed by Robert Sanchez

Expanding data centers, making maximum use of microcomputers in the office and linking micros to corporate mainframes are typical tasks of organizations making the most of the high-tech age. *Micro to Mainframe Links* makes these complex jobs easier.

This is a business book, dealing with such weighty managerial issues as starting micro to mainframe links, linking categories, assessing integration needs, planning workstation integration and selecting link products.

Although Kopeck's advice often is general in nature, there are a few areas in which he is more specific. One particularly enlightening section is his six "crucial guidelines" for link implementation: treat link products as any other major

Linking computers: *Kopeck's tips*

communications equipment that interfaces with the host; know how link devices connect to the host computer; know what diagnostics are available; keep users involved in the implementation; know how link products work in relation to other systems; and provide training and education for users.

Two fine appendixes feature eight pages of link vendors and four pages of local area network vendors. Both lists contain addresses and phone numbers.

Managers may not have the time to sift through the nearly 300 pages of prose just to glean a few needed concepts. However, *Micro to Mainframe Links* is not particularly technical, is reasonably easy to read and has good chapter summaries.

Kopeck's effort suffers, though, from the lack of a glossary. Token-ring LANs are discussed, for example, but are not defined. Too, the book is wordy and contains a few historical irrelevancies — why dredge up the origins of the personal computer?

Overall, Kopeck gives the high-tech manager a solid foundation for planning the company's micro-to-mainframe connections.

Robert Sanchez is a technical writer living in North Billerica, Mass.

Mastering 1-2-3

By Carolyn Jorgensen
Sybex, 1986
466 pages, $19.95 (softcover)
Reviewed by William J. Lynott

The majority of Lotus 1-2-3 users are probably aware that they are using only a small portion of the program's capabilities. Even advanced users often are unaware of some of 1-2-3's more exotic functions. That is why books such as *Mastering 1-2-3* are finding a ready market.

While the documentation for Lotus products is better than the undecipherable glop accompanying some software, it still is woefully short on lucid explanations in many spots where they are needed most. *Mastering 1-2-3* comes to the rescue.

Typical of the computer books from Sybex, this is written in an informal style that gives you a reasonable shot at understanding some of the program's more exotic features. If you have room to hang it, the huge wall chart of the 1-2-3 menu structure will enable you to visualize the program's intricacies more effectively as you go through the book's exercises.

Mastering 1-2-3 is organized around specific functions and levels of use. An early chapter provides an excellent rundown of the significant differences between releases 1a and 2. Beginners will find the first three chapters to be far more helpful than the 1-2-3 documentation.

Starting with the basics of building a spreadsheet, *Mastering 1-2-3* moves gradually into the program's advanced levels. Intermediate users of 1-2-3 will have no trouble identifying sections they can skip.

Each chapter centers on a specific function, making the book an excellent reference for permanent use. For example, Chapter 4 covers all functions. Examples are used to show how each of these powerful commands can be put to work. The explanation of the LOOKUP function is the clearest and easiest to understand that I have seen.

Got a printing problem? Turn to Chapter 7, "Formatting, Printing and File Handling." The printing and formatting functions of 1-2-3 are not the easiest part of this program to master, and this chapter should prove helpful to all but the most advanced users.

Chapter 6 covers the necessary steps to create and print graphs from data contained in a 1-2-3 worksheet. Helpful illustrations cover line, bar, stacked bar and pie charts. Graphing is one of the topics covered nicely in the 1-2-3 documentation, so advanced users will not get as much out of this chapter as the beginner.

Other chapters are devoted to using 1-2-3 as a database manager, developing macros, using STRING functions, and sharing data with other programs.

At 466 pages, *Mastering 1-2-3* gives you a lot for your money. This is a good investment for just about anyone who has laid out the purchase price of 1-2-3.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

Electronic Edition Book Reviews

The following book reviews are available this month on *Online Today Electronic Edition* by typing GO OLT-240 at any prompt on the CompuServe Information Service.

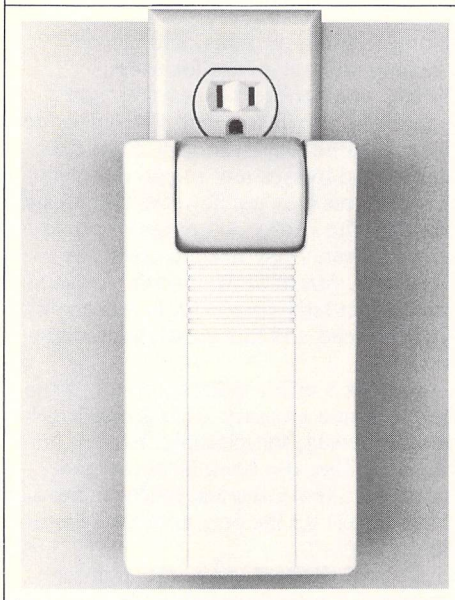
Programming the Macintosh User Interface, *by Henry Simpson, Byte Books/McGraw-Hill.*

Advanced Excel, *by David Bolocan, TAB Books.*

Desktop Publishing on the Mac: A Step-by-Step Guide to the New Technology, *by Kevin Rardin/The Waite Group, Plume.*

Word Processing Power with Microsoft Word, *by Peter Rinearson, Microsoft Press.*

Mastering dBASE II Plus: A Structured Approach, *by Carl Townsend, Sybex.*



New Modem Line

Capetronic Computer Peripherals Inc. has introduced a new line of Hayes-compatible 1200/300 baud modems.

The 1200B IBM Half-Card, the QT1200 wall mount modem and the 1200 stand-alone modem all offer Bell 212A-103 compatibility with auto-answer, auto-dial, programmable dialing, accessible time base, help commands, diagnostics, touch-tone and pulse dialing and more.

For information, contact Capetronic Computer Peripherals, 2880 San Thomas Expressway, Suite 200, Santa Clara, CA 95051; 408/748-1200.

GO EBB or circle 23 on the Reader Service Form.

Conference Utility

In-Synch (Release 1.03A) from American Video Teleconferencing Corp. is a teleconferencing utility that now supports a wide range of personal computers.

In-Synch is a RAM-resident pop-up utility allowing microcomputers linked by modems over ordinary phone lines to hold PC teleconferences in which they share and manipulate data in real time. The original version supported the IBM PC family and compatibles; this latest release supports the AT&T 6300 and 6300 Plus series, the Tandy 3000 HL series and Leading Edge Model M. Retail price is $149.95.

For information, contact American Video Teleconferencing Corp., 110 Bi-Country Blvd., Farmingdale, NY 11735; 516/420-8080.

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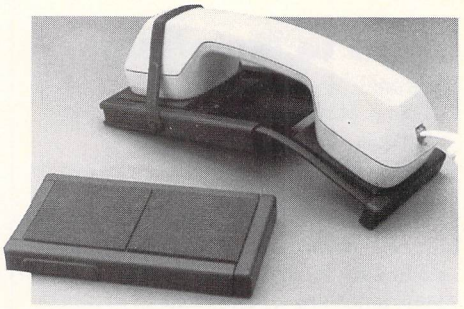
Laptop MA-100 Modem Adapter

Novation Inc. has introduced a modem adapter designed to expand the use of modems in laptop computers.

The MA-100 Modem Adapter allows portable laptop computer users to use non-modular phones most frequently found in hotel rooms, airports and most public phones. The unit folds to wallet size and yet is adaptable to virtually any handset, including European designs. The unit allows data communication at 300 and 1200 bps over normal phone lines worldwide. Retail price is $129.



For information, contact Novation Inc., 20409 Prairie St., Chatsworth, CA 91311; 818/996-5060.

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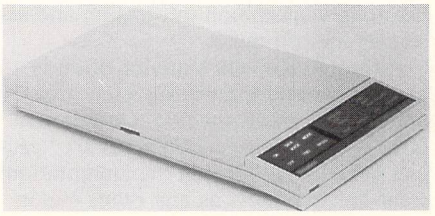
Lower-cost Modems

Novation Inc. has introduced the XE series of lower-cost modems.

The new XE models include a 1200 bps stand-alone unit selling for $299, a 1200 bps half-card internal modem listing for $199 and a 2400 bps stand-alone unit retailing for $649.50. The stand-alone models offer front panel controls and surface mount design.

For information, contact Novation



Inc., 20409 Prairie St., Chatsworth, CA 91311; 818/966-5060.

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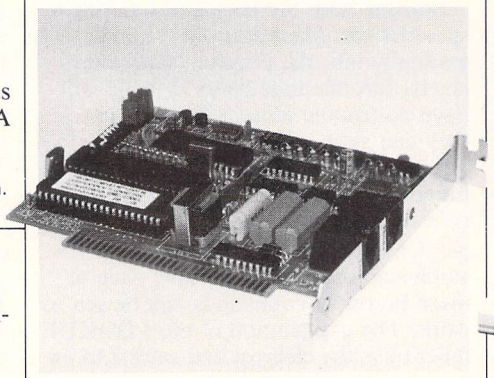

At Your Command

Command Research Technologies Inc. has introduced a half card modem for the IBM PC and compatible microcomputers.

Called the connect 1200 B/2, the modem features an eight-position DIP switch and four jumpers for full flexibility. It is automatically switchable between 1200 and 300 baud, and the command set is fully Hayes compatible. List price is $159.

For information, contact Command Research Technologies Inc., 3808 Sullivan Building N-2, Spokane, WA 99216; 509/924-5990.

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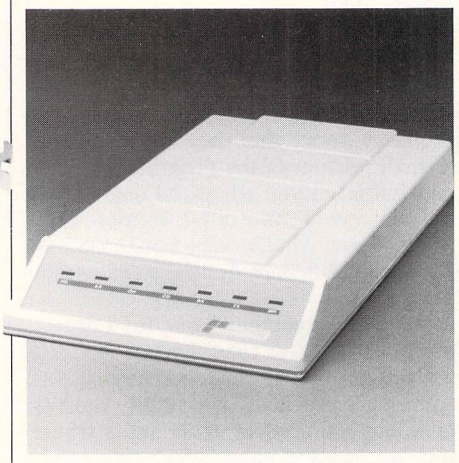

Practical Modem

Practical Peripherals has introduced a standalone 1200 bps modem.

The Practical Modem 1200 SA is fully Hayes-compatible and includes auto-dial, auto-answer capabilities, supports virtually all communications software and includes an upgrade path for a programmable enhancement card. Retail price is $239.

For information, contact Practical Peripherals, 31245 La Baya Dr. Westlake Village, CA 91362; 818/991-8200.

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Search for Saturn

A new T-carrier modem that comes fully equipped with all input/output connectors, extensive timing modes and performs AMI and B8ZS encoding has been introduced by Scitec Corp.

The Saturn 15/20 T-Carrier Modem features independent, external, loop or station timing modes that are easily selected by DIP switch. List price is $1,450.

For information, contact Scitec Corp., 850 Aquidneck Ave., Middletown, RI 02840; 800/343-0928 or 401/849-4353.

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Private Access

Private Access is a data communications system manager from Computer Accessories that provides fail-safe security and system control from remote locations for one to 100 authorized users.

Private Access, which sells for $499.95, records and reports all communication activities and manages user access to the system. By interfacing between the modem and the microcomputer system, Private Access allows the authorized user to automatically power-up the computer system, gain access to software files and functions, print and, upon completion, power-down the system.

For information, contact Computer Accessories Corp., 6610 Nancy Ridge Dr;, San Diego, CA 92121. 619/457-5500.

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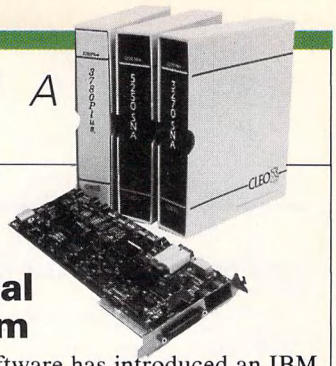

Cleo Internal Modem

Cleo Software has introduced an IBM PC-compatible internal modem that combines a 2400 baud synchronous modem with a 1200 baud asynchronous modem.

Called the Cleo 201/212, the modem card features auto-dial, auto-answer capabilities, requires only one expansion slot and one telephone line. Retail price is $1,195 with asynchronous software. With the addition of synchronous software, the package sells for $1,795.

For information, contact Cleo Software, 1639 N. Alpine Rd., Rockford, IL 61107; 815/397-8110.

GO EBB or circle 34 on the Reader Service Form.

Turn on TeleVision

TeleVision from LCS/Telegraphics Inc. is a high-performance graphics communications software package for businesses and individuals.

TeleVision enables users to send and receive both images and text through any electronic mail system. Using advanced data compression and encoding techniques, TeleVision reduces the size of images and binary data files to allow them to be economically transferred through existing text oriented host systems, including CompuServe and MCI Mail. The program runs on an IBM PC, PC-XT, PC-AT and compatible computers and requires an IBM or compatible Color Graphics Adapter, a mouse and a Hayes or AT&T compatible modem. Retail price is $99.

For information, contact LCS/Telegraphics, 261 Vassar St., Cambridge, MA 02139; 617/547-4738.

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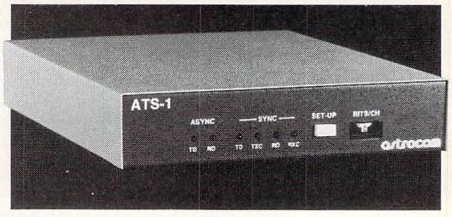

Asynch-Synch Converter

Astrocom Corp. has introduced the ATS-1 Asynch to Synch Converter for $395.

The ATS-1 accepts ASCII data from an asynchronous device and converts it for operation with synchronous transmission devices. It selectively removes stop bits and synchronizes the remaining bits with the receive clock from the synchronous transmission device.

For information, contact Astrocom Corp., 120 W. Plato Blvd., St. Paul, MN 55107-2092; 612/227-8651.

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Relay Gold

VM Personal Computing has upgraded Relay Gold (Version 2.0), a communications and micro-to-mainframe link package for the IBM PC.

Enhancements include 3270 emulation board support, an improved interactive tutorial, better documentation, background operation and an Application Program Interface. Retail price is $250.

For information, contact VM Personal Computing, 41 Kenosia Ave., Danbury, CT 06810; 800/222-VMPC (nationwide) and 203/798-3800 (in Conn.).

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Electronic Edition Product Announcements

The following new product announcements are available this month in *Online Today Electronic Edition* by typing GO OLT-250 at any prompt on the CompuServe Information Service.

Master Tracks PC, *professional music sequencer for the IBM PC, Passport Designs Inc.*

MultiSpeed, *PC-compatible laptop computer, NEC Home Electronics Inc.*

S-220, *dual 20 MB half-height disk drive for Apple and Macintosh computers, CMS.*

Turbo Asynch Plus, *hardware interrupt support, Blaise Computing Inc.*

Disk Explorer, *file recovery disk utility for the IBM PC and compatibles, Quaid Software Ltd.*

Checks and Balances, *bill paying and check writing from Lotus 1-2-3, Rational/Design.*

Word Writer PC, SwiftCalc PC, Data Manager PC, Partner PC, *productivity programs for the IBM PC and compatibles, Timeworks.*

ACE 500, *Apple IIc compatible computer, Franklin Computer Corp.*

Taxworks, *income tax preparation program for IBM PC and CP/M computers, Hollingsworth Business Services.*

Eureka: The Solver, *problem solving and numerical analysis program for the IBM PC and compatibles, Borland International.*

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February issue, not valid after May 1987.

How to Stay Current in the Online Community

CompuServe is like a little city in which thousands of activities, many of them public events you can participate in, go on every day and evening.

But how do you know what's happening, and where? How do you find out the good word on the good stuff?

The most familiar source of these community bulletins is the weekly "What's New" feature. Online veterans have come to expect a fresh edition of What's New every Thursday. Displayed automatically at log-on, What's New lists eight to 10 news items — upcoming events, systems changes, contests and surveys.

If you want to reread What's News at any time, you can type GO NEW at any prompt on the service. Previous weeks' issues of the feature also are available online (type GO OLT-70).

For years, What's New was the only systemwide bulletin online. As CompuServe has grown, though, so has the need for more diverse news and information resources. This column focuses on some of the other ways you can stay up-to-date on what's happening in your electronic town.

Near and dear to us here at *Online Today* is the electronic edition, a daily publication containing material that is different from what you read in these printed pages. For instance, the Monitor section of *Online Today Electronic Edition* has daily news from the computer industry. Updated editions are published throughout the day, seven days a week. The reviews in the hardware, software and book sections also are different from the printed edition's reviews.

There is a legislative database administered by Cathryn Conroy that tracks important computer laws and bills. John Edwards' feisty "Behind the Screens" feature provides the lowdown on the hot rumors of the computer business. You can reach *Online Today Electronic Edition* by typing GO OLT at any prompt on the CompuServe Information Service.

Some of the features you find there are of particular interest to us in this column. For instance:

- A menu page is devoted to "Community News" stories — that is, news about CompuServe's online neighborhoods. You can reach this directly by typing GO OLT-80.
- Online conferences are given special treatment in the electronic edition. By typing GO OLT-120, you can retrieve reports of major upcoming conferences scheduled in various forums, their dates and times, the names of guests and topics, and directions for getting to the scene. Also there is a list of the dates and times of regularly scheduled informal conferences in the various forums. That's where you can find out when the forums' informal gabfests occur.
- One of the new features in *Online Today Electronic Edition* is Dave Peyton's "Uploads" column. It reports names and online locations of some of the hottest new files — articles and public domain and shareware programs — that have recently been uploaded in various forums. Obviously, it is not a list of *all* such files — there are thousands of them. What "Uploads" offers is a sampling of some of the more interesting additions across the system. New columns appear every few weeks, near the 1st and 15th of each month.

On many of the pages of the electronic edition are menu items that allow you to read or write letters to the editor. If you have an idea for a new feature in the electronic or print edition, drop a line.

Besides *Online Today* there are other sources of information about the system. For example, the command NEW (not GO NEW) will work in some areas, letting you get the specifics of changes and enhancements to a particular feature.

Try it in EasyPlex, the electronic mail service. Type NEW at the main EasyPlex menu or prompt and you will see a dated bulletin that lists new features and how to use them. Similarly, the NEW command can be entered at the main Function menu or prompt in any of the online forums for information on new commands and options.

Speaking of forums, don't overlook the bulletin section for online news. In any forum, you may type B at the main prompt to receive a menu that gives you access to:

- Short bulletins — the most recent news from the forum administrators.
- Regular bulletins — undated background material helpful in using that particular forum.
- Data library bulletins — descriptions of how the library is used in that forum and tips on using it.
- Conference bulletins — a schedule for regular conferences in that particular forum.
- The sysop roster — a file introducing the forum's administrators.

There's one forum particularly useful for new arrivals on the system — the *Online Today* CompuServe Connection Forum (GO OCC or GO COMPUSERVE).

This forum, operated in conjunction with *Online Today* magazine, is a combination traffic cop and welcome wagon, fielding questions daily about how to use the system, where to find specific features and how to use them. If you can't find what you are looking for with the features already listed, write an online note and ask about it. The message board of OCC is open to you.

So is Feedback, the Customer Service area of the system. And Feedback has a special claim for your interest — the time you spend in that area of the system (GO FEEDBACK) is not billed.

Feedback has been expanded recently to include a valuable database of answers to frequently asked questions, the Customer Service Question and Answer database. At this writing, the topics covered include billing, logging on, Public Access, EasyPlex, MCI Mail connection, the forums, the Personal File Area, the creation of a "personal menu," setting "first service" options, the Executive Option, online ordering, Comp-u-store, the CB Simulator, stock market quotes and the National Bulletin Board.

The new Q&A database is accessible from the main Feedback area or directly with the command GO QUESTIONS.

Charles Bowen, contributing editor of Online Today *and co-author of* How to Get the Most Out of CompuServe, *is from Huntington, W. Va. His CompuServe User ID number is 70007,411.*

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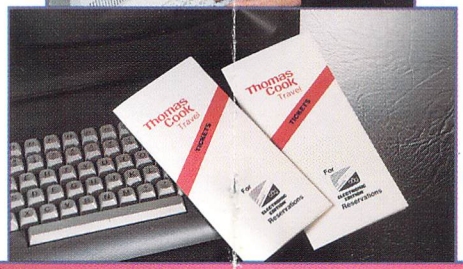

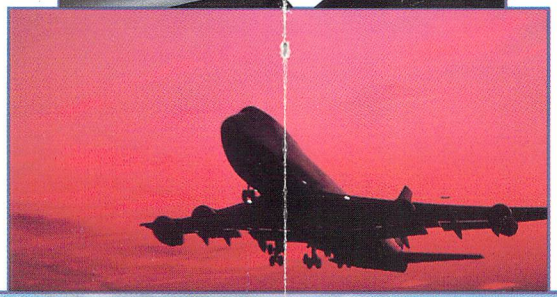

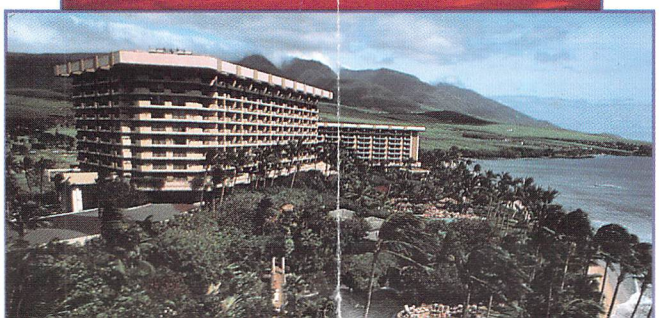

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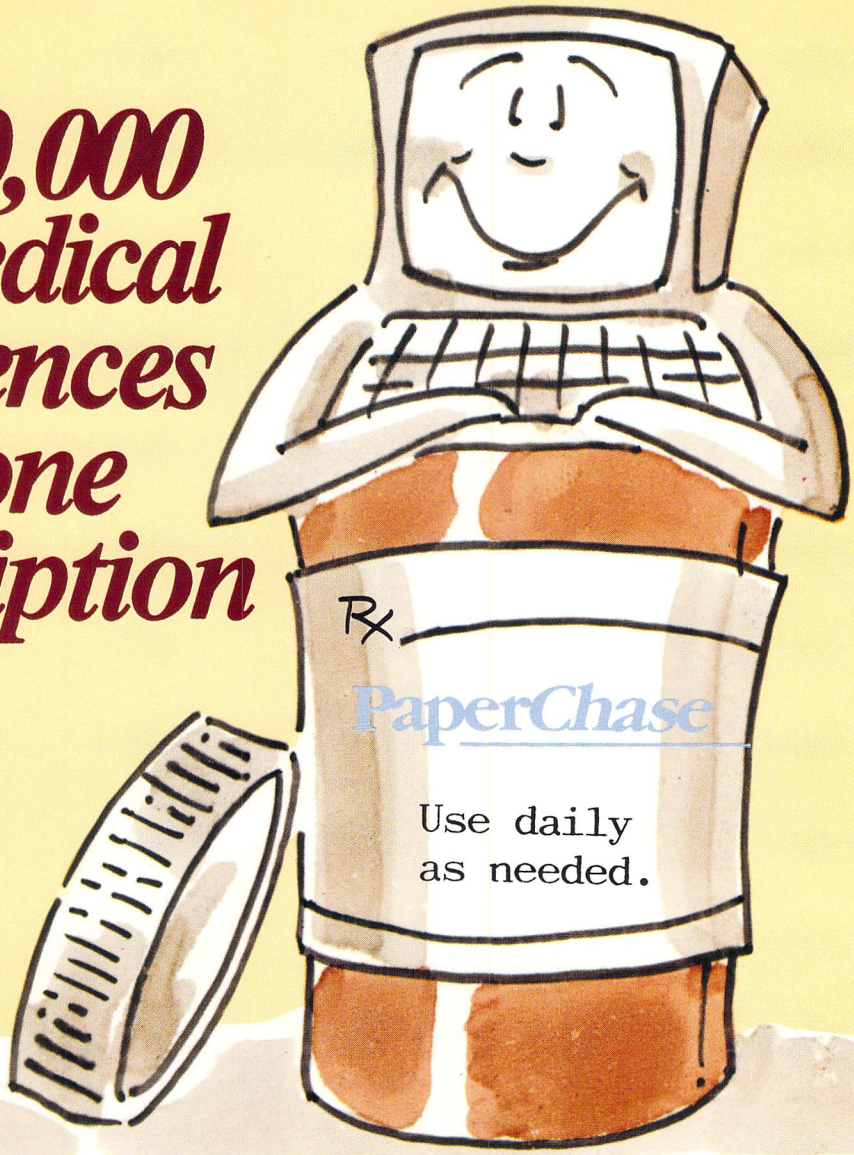

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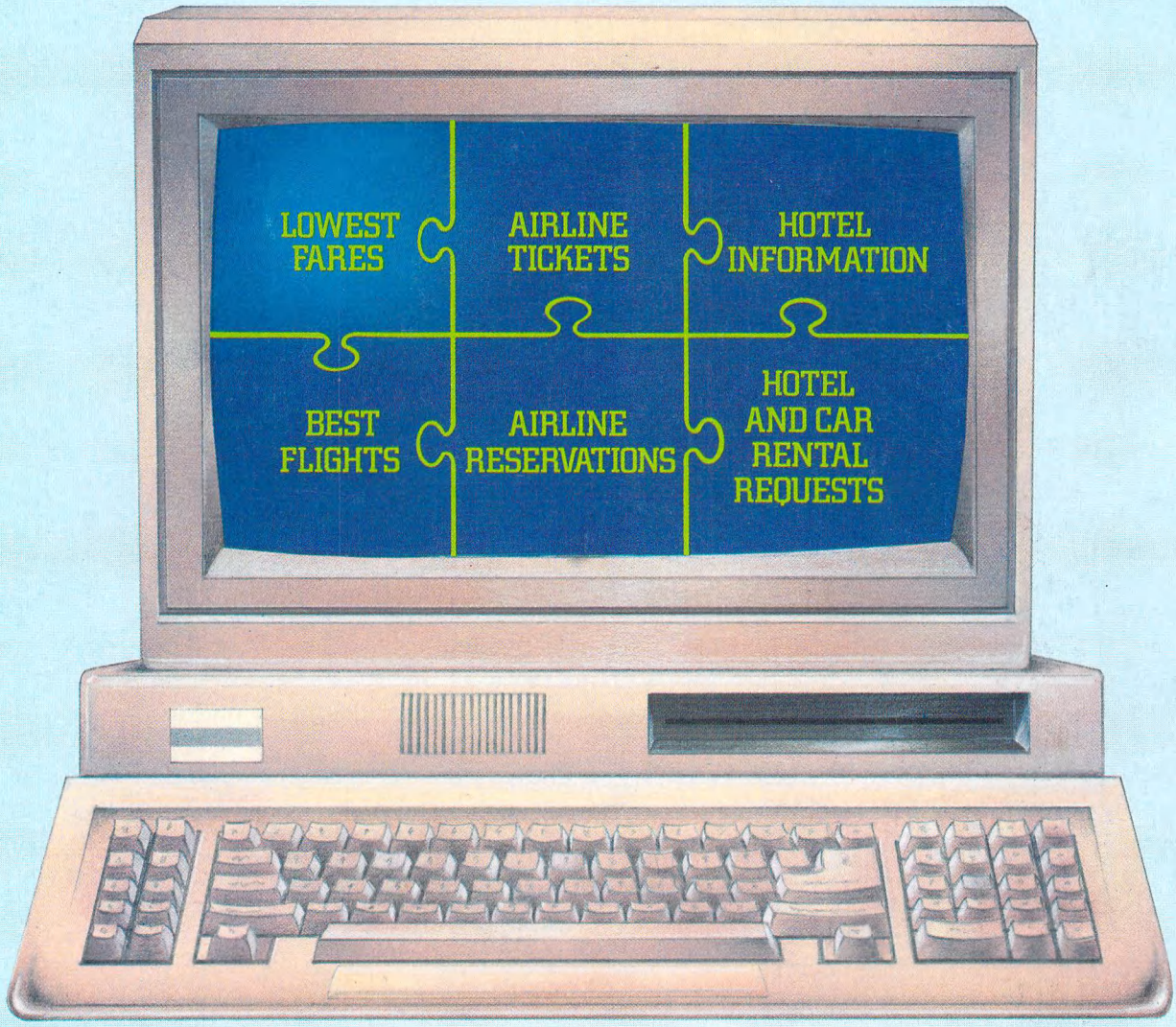

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